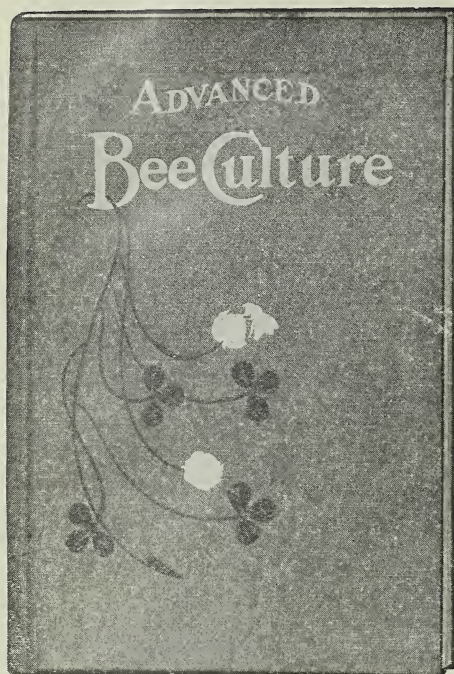


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Gleanings in Bee Culture

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ADVANCED BEE CULTURE is a beautifully printed book. Best plate paper has been used throughout its 200 pages, with the result that the many fine illustrations are unusually clear in every detail. Bound in attractive and substantial cloth. A volume whose appearance and unquestionable worth justify its title to a place in the library of every bee-keeper. No more important work on this fascinating subject has recently appeared.

The untimely death on May 30, 1911, of Mr. W. Z. Hutchinson, author of . . .

Advanced Bee Culture

marked the passing of one of the most brilliant writers who have ever championed the cause of the honey-bee. . . Perhaps no better tribute to this talented man could be given than that contained in the following paragraph from a testimonial article on Mr. HUTCHINSON's life by Prof. A. J. Cook, in GLEANINGS:

"No one could know him and his work without convincing proof that he stood in the very front ranks of our bee-keeping fraternity. His quick intellect, coupled with his close attention to details, won for him, at the very start, phenomenal success as a queen-breeder. To this, apiculture owes its great good fortune in securing his life-long service in its development. He was temperamentally exact and methodical, transparently honest, and if I were to select one word to characterize our brother it would be genuineness. He was delightfully companionable, and always alert for any new idea or suggestion touching the interests of the work, to which he was so entirely devoted. His quick apprehension and terse clear-cut style as a writer, made him a most reliable exponent of all that was latest and best in the theory and practice of his beloved art."

Most fortunate for all bee-keepers is the fact that Mr. Hutchinson's life was spared just beyond the point when he had completed his reading and correction of the editorial proofs of the new edition of ADVANCED BEE CULTURE. Only a few short days after an editorial by Mr. E. R. Root, editor of GLEANINGS IN BEE CULTURE, who revised Mr. Hutchinson's book, had appeared, the call came, and this sterling, upright man, whom everybody loved, was taken home. Read what Mr. Root has to say of Mr. Hutchinson's book:

As a writer on bees Mr. Hutchinson has few equals. For clearness of style and accuracy of judgment he is second to none. His enthusiasm shines forth on every page. His selection of the new and the useful from an extended discussion is intuitive. The last edition of "Advanced Bee Culture," as well as the new edition before, is made up of the best ideas of our best experts, properly classified and condensed by a master of the art of boiling down discussions. I do not hesitate to say that this is one of the most valuable books on bees that was ever put out; and while its title would indicate that it is designed only for the advanced bee-keeper, yet I am sure that a large number of beginners in the business will find it exceedingly helpful and interesting, especially if they will take it in connection with some other work like the "A B C and X Y Z of Bee Culture," or any text-book designed especially for the beginner class.

\$1.50 Buys a Two-dollar Value

ADVANCED BEE CULTURE costs \$1.00 per copy. GLEANINGS IN BEE CULTURE (semi-monthly)—known and read by bee-keepers throughout the world—\$1.00 for an annual subscription. It is our pleasure, however, to offer this interesting and most useful combination—the book here described, and GLEANINGS one year, both for \$1.50. It is a value you will very seldom find—really it is a good \$2.00 worth for \$1.50.

Foreign postage, 80 cents extra; Canadian postage, 30 cents extra.

Cleanings in Bee Culture

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OCTOBER 15, 1912

NO. 20

Editorial

DURING this month a good many colonies will have to be united. Many have complained that bees go back to their old stand; but if the work is done rightly there will be no returning. Wait until the first four or five days of cool weather, then early in the morning do the uniting, removing the hives from the old stands entirely.

STINGLESS BEES (?) ETC.

THE clipping below seems to have been having the run of the daily papers. We clip it from the *Detroit News* of Oct. 1:

The stingless bee has at last arrived, having been produced by an English apiarist named Burrows after two years of experiment. A description of the new bee, which has been received here, says that the hybrids are splendid workers, and are less liable to disease than the ordinary honey-producer. Burrows mated Cyprian drones with Italian queens to produce the new bee, which, while possessing a stinger, can not use it as a weapon of offense.

Something like twenty years ago, when D. A. Jones brought the first Cyprian bees from Cyprus, the same or a similar claim was made, and there was just a grain of truth in it. The Cyprians, or a cross such as mentioned, seemed quite slow about getting on the "war-path;" but it soon transpired that, when once roused up, say by untimely meddling, they stung worse than any other bees we had. So much for newspaper canards.—A. I. R.

HONEY-MARKET CONDITIONS; CORNERING THE MARKET.

AT the present time there seems to be an effort on the part of some one to corral the crop of western honey. Small buyers are complaining that they are unable to supply their needs. While this will have the effect of boosting prices of both comb and extracted, the people who are doing the cornering should not make the mistake of holding on too long nor boosting the prices too high. Now is the time to sell honey—especially that in the comb. When cold weather comes on, the prospective buyer is confronted with the hazard of granulated comb honey. He will be shy about

placing his order, and the result will be that some one will be left with a lot of comb honey on his hands that he can't sell.

SHIPPING BEES IN 1, 2, AND 3 LB. PACKAGES WITHOUT COMB.

It is usually very difficult to send bees without combs in extremely hot weather any distance. While we have had splendid success in making such shipments all over the country when the weather was suitable, we have had difficulty when it turned extremely warm, especially with the larger packages of bees. Lately we have been providing bottles of water; and in every case where the water was given, the bees went through in good order. In some cases not a single bee was reported dead, notwithstanding the weather was very warm when the bees were *en route*. Experience has shown that bees in high temperatures require water. Without the means of getting it they will die in a few hours. This explains why nuclei and colonies on combs will go through in good order, because the water in the honey would seem to carry them through. On the other hand, without combs, and only bee candy, under similar conditions, they will go through in bad order.

We took some little self-sealing tin cans and filled them with water, and, after screwing the cover down, made a single perforation through the cap about the size of a pin. These were secured in the center of the cages, when, presto! the bees would go through with the loss of scarcely one of their number.

PARCELS POST AT LAST AND ITS EFFECT ON BEE CULTURE.

OUR readers will remember how, during the past three or four years, we have been urging them to write to their Representatives and Senators in Congress, requesting their favorable consideration of the various parcels-post measures that have been submitted from time to time, and how as often they have been put to sleep in committee;

but during the past year the demand for parcels post has been so insistent, and the spirit of the age has been such, that Congress has finally yielded and given us parcels post on the zone system, the same to become effective next January. While it is to be admitted that the general plan proposed is somewhat experimental, yet a movement has been made which, we believe, will result in an effective parcels post.

Congress did not deem it practicable to give us the same kind of parcels post that has worked so satisfactorily in nearly all European countries—a system that allows one in Europe to send a package not exceeding 11 lbs. in weight any distance at a certain definite rate. On account of the immense distances in the United States, our lawmakers seemed to feel that any scheme of parcels post with no distance limit, which would be feasible in a small country, might bring a heavy postal deficit in the United States, and so the zone system as outlined by Dr. Miller on page 648 of this issue was adopted.

We notice that a number of the journals—notably the *Scientific American*, believe that the zone system of charge according to the distance the package is to go “will be the most vexatious and annoying feature of the new plan, and contrary to the general purpose of our postal usage—that is, one rate regardless of distance traveled.” We can not help sharing this feeling. Whether the express companies or other “interests” had any thing to do with opposing a scheme of one rate for all distances we do not know. We see no reason why the United States can not carry parcels-post packages to all parts of the United States at the same rate for all distances, if it can send letters, books, and other matter on the same basis. According to the law of average, the long and short distances would equalize at a point that would warrant a uniform rate, and thus avoid the complicated system of the multiplicity of rates we are to have. However, we are not inclined to criticise, but feel, on the other hand, that every loyal American should unite in giving the new plan a careful and thorough trial—especially as the Postmaster-General has authority to change the classification of mailable articles, weight limits, rates of postage, or the system of zones. If he is a broad-gauge and far-seeing man—one who can not be influenced by the “interests,” well and good. We will assume that he is, and that he will be just that kind of man; therefore we are optimistic concerning the future, and thankful—mighty thankful—that we have

secured as much as we have. Once the people get a chance to try out parcels post they will demand that it be retained.

The effect of parcels post, we believe, will be to reduce the expressage on bees and honey in small lots. Hitherto the rates have been almost prohibitive on packages weighing over 7 lbs.; but as the express companies have done in the past, so they will do in the future—meet rates of postage anywhere and every time. They will be compelled to do so and more. This would mean that we would be able to send bees in the form of pound packages, or nuclei and full colonies, at rates that will be much more equitable and within reason. It is very possible that we may be able to send bees by mail in pound packages; but we question the wisdom of making the attempt, for the reason that some fool (pardon the expression) might send out a package that would let bees loose in the mail car, or in some public place where they would do a great amount of damage. There is no telling what might happen. The Postmaster-General or any of his assistants who have unlimited powers to make rules and regulations might bar bees from the mails entirely.

A STUDY OF THE WORK OF A QUEEN.

OUR cover picture for this issue is from a photograph taken by Dr. E. F. Bigelow, Arcadia, Sound Beach, Ct. Dr. Bigelow's explanation of the work of the particular queen that laid these eggs appears on page 657, together with two other illustrations. Of course, it is understood that a photograph does not reveal the depth of the cell. In a real comb the cell is nearly half an inch deep, so that the eggs are not as easily seen as they are in this picture.

This cover picture in many ways presents an interesting study. It shows that the best of queens, even when there is plenty of room, may lay two eggs in one cell. Right in this connection, however, it may be well to point out that, when there is more than one egg in a cell, the queen may not be responsible. The trouble may be due to a lack of room, in which case the queen literally drops eggs promiscuously about the comb, very often not getting them into the cells at all. At such times the workers pick up these eggs, and it would not be at all strange if they placed them in the cells, for at certain times of the year it is not uncommon to find cells which contain even as many as ten or fifteen eggs. A beginner confronted by these conditions, and having heard something about laying workers, is apt to conclude

that his queen is "no good," or else that laying workers have developed. Unless the queen were actually found, there might be some grounds for supposing this condition to indicate laying workers, for it does not look at all unreasonable to suppose that laying workers may drop their eggs promiscuously, and that the bees themselves pick them up and place them in the cells. Of course, if laying workers have been at work very long, scattered drone brood in worker cells is likely to be the result.

Whenever a queen is crowded for room, it is not uncommon to find an egg and a larva in the same cell, or even two larvæ. If the experiment is tried of grafting two larvæ in a single queen-cell, the bees will feed both of them until it is time for the cell to be capped over, and then one of the larvæ disappears.

Notice that one of the cells shown in the cover picture contains a larva instead of an egg. This cell might have been the first one in which the queen laid, although it is more likely that this egg hatched a little in advance of the other. It is certainly true, as we have pointed out in these columns before, that larvæ from the same queen and of the same age vary greatly in size, and it would not be unreasonable to suppose that certain eggs hatch more quickly than others. Some hens' eggs hatch more quickly than others, and some chicks make a much faster growth; so it is not surprising that the same would be true in case of queens' eggs and larvæ.

But to return to our picture. We should explain that the top of this picture does not represent the top of the comb as it originally hung in the hive. Fig. 2, page 658, shows a small portion of the same comb in the correct position. While there is not absolute uniformity by any means, it is safe to say that a queen while she is laying an egg *usually* has her head toward the upper part of the comb, and that the egg is *generally* attached to one of the upper sides of the base of the cell near the center. If the comb is held vertically, the egg when it is first laid does not lie in a horizontal position, but inclines downward toward the center of the cell somewhat. The second day after the egg is laid, it inclines still more, and the third day it lies almost flat on the base of the cell. It is thus possible to calculate more or less accurately the time when the egg will hatch.

The color of the egg varies quite a little, from nearly pure white to a rich cream. The size also varies considerably when those of different queens are compared. In

fact, the color and size seem to vary fully as much as do the color and size of hens' eggs.

REPORT OF THE BEE INSPECTOR IN COLORADO FOR 1911.

THOSE who are inclined to throw cold water on honest efforts toward progress along the line of eliminating disease from our country, and who believe that bee inspectors "do more harm than good," etc., should read the 1911 report by Wesley Foster, the State Bee Inspector of Colorado. Mr. Foster opens his report by explaining that the appropriation of \$1000 for a year is so small an amount that it has been necessary to confine the work to the counties that can pay for a deputy county inspector to work under the supervision of the State Entomologist. The county inspectors who were doing inspection work under appointment from the county judges have been retained as deputy inspectors where the county commissioners were willing to pay their salaries and expenses. The prospects are favorable for a longer list of counties that are willing to help out in this work for 1912.

Five years ago fourteen per cent of all colonies inspected were affected with foul brood. In 1911 less than two per cent were found infected. Moreover, a carload shipment of bees from Kansas, where foul brood is prevalent, was kept from being shipped into the State.

The following table, condensed from the statistics in the report, shows briefly what has been done.

County.	Inspector.	Inspected.	Diseased.
Otero,	Wesley Foster,	605	1
Prowers,	"	910	0
Montrose,	"	813	79
Garfield,	"	40	++
Delta,	"	971	201
Boulder,	"	140	2
Boulder,	W. C. Dyer,	435	1
Bent,	D. S. Jenkins,	22	0
Garfield,	O. V. Coulter,	343	47
Montrose,	Robert E. Foster,	3494	176
Fremont,	F. W. Brainard,	987	184
Adams,	Walter Martin,	675	28
Prowers,	D. C. Polhemus,	385	0
Montrose,	J. R. Miller,	4334	176
Otero,	V. O. W. Hopper,	2437	138
Mesa,	William Harkleroad,	8075	130
Montezuma,	R. W. Calkins,	246	148

Some idea of the extent of beekeeping in Colorado is gained from the full report. Notice that in six counties there were more than a thousand colonies inspected, and in Mesa County alone over 8000 colonies were inspected at least twice, and some of them the third time. The inspector in this case, William Harkleroad, evidently did not have much spare time. In all, 26,861 colonies in the State were inspected, and 1576 colonies were found diseased.

Stray Straws

DR. C. C. MILLER, Marengo, Ill.

ELIAS FOX, I'm with you, p. 564. I believe I can more successfully combat the faults of a bad cellar than of a bad out-doors.

W. G. SAWYER faces his hives toward the cellar wall, p. 564. I've always faced 'em t'other way—thought it gave them warmer air. I wonder which is better.

G. M. DOOLITTLE, you say, p. 617, that opening cellar doors at night always seems worse than nothing when the air outside is warmer than that inside. Not in "this locality." But your head is level and your heart right on the liquor question, p. 643.

THE *Canadian Bee Journal* is crowing over the acquisition of F. W. L. Sladen, F.E.S., as assistant in apiculture to Dominion Department of Agriculture. I'd crow too. In fact, I feel like crowing that he is on this side the ocean. Those Canucks can't keep him all to themselves, you know. He's too big a man.

THIS YEAR is the record one for long-continued blooming of white clover. Beginning the last end of June it has bloomed continuously till now, Sept. 30, when a good deal is still to be seen in bloom. But I don't know when it stopped yielding. [Clover continued up until late here; nor do we know just when it ceased to yield.—ED.]

THIS SEASON began in a hopeless style. I fed in June to prevent starving. Then about June 25 white clover began to bloom, and, except for wet days, there was no let-up in the flow from clover or something else until about Sept. 20. Four colonies have given respectively 191, 192, 198, and 198 sections. Not so bad for a season beginning June 25.

CHARGES for the new parcels post, effective Jan. 1, 1913, are a little confusing. I figure it this way: City delivery, or on a rural route, 1 ct. a pound, and 4 cts. extra on each package; within 50 miles in a bee-line, 3 cts. a pound and 2 cts. extra; within 150 miles, 4 cts. a pound and 2 cts. extra; 300 miles, 5 cts. a pound and 2 cts. extra; 600 miles, 6 cts. a pound and 2 cts. extra; 1200 miles, 7 cts. a pound and 2 cts. extra; 1400 miles, 9 cts. a pound and 1 ct. extra; 1800 miles or more, 12 cts. a pound. [See editorial columns.—ED.]

A. I. ROOR, that alfalfa business, p. 569, looks revolutionary and almost like romance. Think of plants set 2 feet by 3 feet 8 inches apart! I've been out and measured and counted carefully an average

spot of my alfalfa, and there are 20 plants to the square foot. That means 147 plants for every one that ought to be. Then think of transplanting an acre (5940 plants) in a trifle less than an hour! What's that transplanter like, and what does it cost?

THE *Practical Farmer*, page 491, says, "Some States have proscribed sweet clover as a weed, and have imposed penalties upon those who allow it to grow." Can you tell what States? [Sweet clover is included among the noxious weeds in Ohio. We do not know about other States; but we infer from reports that have come in that two-thirds of the other States in the North, at least, have a similar law.—ED.]

A CORRESPONDENT asks how to winter a weak colony in Tennessee. If very weak, say bees covering three combs, I would unite with another colony. Otherwise I would winter on summer stand, protected, if only by cornstalks—better a box—open in front and well protected on top. [Something will depend on the locality. In the colder climates, the cellar is the place to put weak colonies; but in a climate like that of Tennessee the doctor's advice is all right. Oftentimes, and perhaps in most cases, south of the Ohio River, single-walled hives that are protected by windbreaks will winter almost as well as hives with protection.—ED.]

ELMER HUTCHINSON, *Review*, 328, thinks temperature a secondary matter in a *very dry* cellar, with good stores and plenty of good healthy bees. In one of his cellars thermometer varied little from 34 degrees from fore part of January till the last week of March, and in 30 years he had never had bees winter better nor consume less stores. I've had the same experience with 50 degrees or higher. No one thing in cellar is more important than air—air, pure air, lots of air. Good for bees, babies, and big bodies. [In all of our experience a temperature of 34 F. in a bee-cellar, if long continued, has generally been very disastrous to the bees before spring. As there is such a great variation in thermometers we arise to ask whether the thermometer that recorded 34 in the cellar under consideration had been tested. We never could succeed in doing good wintering in a temperature below 38, and even then it must not stay there very long. We can winter well with a temperature varying from 40 to 60, providing the ventilation is sufficient and the cellar

dry. We partly agree with Mr. Hutchinson in saying that the temperature is secondary to dryness and ventilation.—Ed.]

SIEGWART says, *Schweiz. Bztg.*, 202, that when bees are shipped without combs or other means to give them a good foothold, many a bee loses its life when the package is thrown, because of the bursting of the crowded honey-sac. If that is confirmed, it seems there might be some danger in the ordinary shaking of bees, especially if they fall upon a hard surface. [We suspect there is something in this. When we first began shipping bees in pound and half-pound packages we did not (as we now do) make use of a series of roughly sawn slats about $\frac{3}{4}$ inch apart, fastened longitudinally through the cage. The result was that many of these packages were reported dead. In later years we put in these supporting slats, and find the bees go through in much better order. The slats are put close enough together so that they act somewhat like combs in supporting the bees. In the old pound packages there was a large amount of vacant space, making it necessary for the bees to hang on to each other. This, we thought, cost considerable leg strain or weariness, and would, therefore, to a certain extent, reduce the vitality of the bees.—Ed.]

PENN G. SNYDER, replying to your question, p. 601, I think the Swiss introduce their virgins to the mating nuclei the same as the Root Co. introduce queens, at least sometimes, to bees in one of their new shipping packages by means of a candied cage. Your experience on three different occasions differs from mine on hundreds of occasions. When a dequeened colony has brood in all stages, it is a rare thing for a virgin to emerge from its cell in less than 12 days, but quite often it is more than 12 days. If it emerges in 12 days, then the larva chosen must have been not more than a day or two old. You say, "Naturally, the older the larvæ selected, the earlier the queen emerges from her cell." That's a rather common idea, but fallacious. We are told that, after a worker larva is fed three days, it is weaned. Then it is fed two days more, and the feeding of that two days makes it five or six days more in developing. If it should be chosen for a queen just before being sealed up, do you think it would then develop within 15 or 16 days of the time the egg was laid? And if chosen any time after being weaned, do you think there would not be a postponement of the time of emergence? If chosen when four days old, if such a larva could be made into a queen at all, it seems fair to guess it would take it so much longer

to develop that the younger larvæ would beat it getting out of its cell. But I don't believe my bees ever chose a four-day-old larva for a queen, *if they had any thing younger.*

NOT OFTEN is my enthusiasm stirred as it was by a sight of a 3-lb. package of bees without brood or bees, received by express from the A. I. Root Co. They've got the thing down fine as to the matter of package. A cubical cage of wire cloth has inside supports for the bees; and the bees looked so bright and contented—only four dead at the bottom—that I spent some time admiring the outfit as a real thing of beauty. It would be impossible to ask a more successful shipment, unless those four bees could be saved, and it is possible they died of old age. What better way of getting a valuable queen than in such a package? Just run the bees into a hive with perhaps a frame or two of brood, and there you are—no introduction, no risk. [We may explain to our readers by saying that we are making experiments in testing packages suitable for shipping bees, without combs or brood, thus eliminating the danger of transmitting foul brood of any sort, and at the same time very materially reduce the weight, and consequently freight or express charges. Combs and the hive constitute over 75 per cent of the weight of a medium colony of bees; in other words, an ordinary colony with 3 lbs. of bees and brood with honey would run about 45 lbs. shipping weight. Three pounds of bees without the brood, combs, or hives comes within 6 lbs. Bees go at the rate of a rate and a half by express. While a 3-lb. package of bees is not the equivalent of a medium colony, 5 lbs. would be. A 5-lb. package would run about 9-lbs., gross weight, as against 45 lbs. for the equivalent of a colony of bees in a ten-frame single-walled hive. If the reader will turn back to our editorial on page 502, August 15, on migratory bee-keeping he will understand a little better what we are driving at in these experiments; in other words, we hope to eliminate the possibility of transmitting disease, and 80 per cent of the weight in shipping colonies of bees in single lots or in carlots. This would make it possible to ship 1000 colonies of bees in one car as against 300 on combs in hives. The possibilities are so great, and would mean so much to the industry, that we feel inclined to do a little experimenting in a small way, with the view of going at it in a larger way if the preliminary experiment seems to justify it.—Ed.]

SIFTINGS

J. E. CRANE, Middlebury, Vt.

Recently I found a young queen laying nothing but drone eggs; but later she laid worker eggs all right. Whether she laid the drone eggs before she had mated or because of her inexperience I have not been able to determine.

* * *

That experiment of coloring bees and letting them fly gives us some useful information as related by Dr. Miller on page 356, July 1. It accounts for the spread of disease, as doubtless young bees go to strange colonies more frequently than older bees; and these young bees may have their stomachs filled with larval food containing more or less disease germs. I believe it a good thing where there is danger of disease; or, where it exists, to set hives some distance apart.

* * *

Mr. Byer somewhere speaks of blueweed as a source of honey. This appears to be the same as that known in Virginia as blue thistle. It has become quite common in some parts of Eastern New York and Western Vermont. One beekeeper in the first county south of me said he had 500 or 600 acres of it within range of his bees. It is considered a very good honey plant, but regarded by the farmers as an unmitigated nuisance. We have found it in three places this season in this county—the first I have ever known here. Beekeepers have a right to raise what they will upon their own land providing they do not let anything spread to their neighbors that will injure them. Honey produced by such means will in the end be bitter honey. An approving conscience is more to be desired than the finest honey in the whitest combs.

* * *

Mr. Walter S. Pouder is a brave man to write as he does on page 379 of the modern claptrap outfit for the ordinary plain farmer beekeeper. And he sells supplies too! The facts are, or appear to be, that only about one beekeeper in ten who attempts keeping bees in improved hives is fit to do so. An improved movable-comb hive is all right in the hands of an improved intelligent beekeeper; but as the average farmer keeps bees I believe the old box hive is far preferable for him and everybody else unless his neighbors are anxious he should go out of business, as he is fast doing. A "bee inspector" has a chance to see all sides and kinds of beekeeping; and of all the absurd things is an im-

proved hive in the hands of the careless farmer who does not look into a hive three times a year, or even once. It is difficult to get into most of such hives, even with a hammer and chisel. I can not express my disgust. There should be, as Mr. Pouder suggests, two kinds of outfits for beekeepers—one kind with every desirable device for scientific beekeepers; and another kind, made in the simplest way, for those to use who will not do any thing but put bees into them and put on and take off supers—a sort of "letalone" hive, as my friend Latham calls his.

* * *

Dr. Phillips' statements on page 451, July 15, in regard to the success of the Colorado Honey-producers' Association, set one to wondering if the same methods could not be used to profit in other States. I have given the subject some thought at one time or another, but have so far been unable to see how such an organization could be made to work here in New England. Colorado beekeepers have a distant market, while we have one near at hand. Their honey must or should be shipped in carload lots to save freight. Here not infrequently the buyers come from the city and look over the different lots of honey produced by different beekeepers, and the grading is arranged between them. Then, again, each beekeeper has his name on his goods, and they are bought by the city dealer on its reputation, or, as is often the case, is sent to the city to be sold on commission. Take our own crop as an illustration. We found time in July to pack over 150 cases ready for shipping at a moment's notice. By August 2 every case was gone. Orders came in for from two to twenty-five cases, and it went to half a dozen or more places, and more will be wanted as soon as we can get it ready. Now, suppose we had a honey-producers' association. We would have had to wait until others had honey enough for a carload, which might be September. Then the honey would have to be sent to some central station to be inspected and graded, and finally shipped to some central distributing city where it would be broken up into small lots and shipped again to jobbers, and perhaps again to retail dealers. We ship directly to jobbers and retail dealers, and I can not help thinking our way is better for us, and I have no doubt the Colorado method of marketing their honey is better for them.

Beekeeping in California

P. C. CHADWICK, Redlands, Cal.

The following letter is self-explanatory, and speaks highly for our State Association:

Mr. Chadwick:—I notice your statement, page 578, Sept. 15, in regard to my bees eating T. Kataoka's strawberries. Mr. Kataoka dropped his suit for damages Sept. 6. Officers and members of the California State Association gave me their help in every way possible, and no doubt the berry-grower saw he had no chance to win.
Pasadena, Cal., Sept. 25. GEORGE B. LARINAN.

* * *

DESIRABILITY OF RANGES.

I had always supposed that there were no ranges equal to those of the button sage, so far as wild growth is concerned, and to a great extent I still believe this to be true; but that there are localities that yield heavily where button sage does not bloom is also true, many of the latter having a great advantage in early honey and pollen that stimulate breeding when there is a shortage of such flora, as was the case in many purely sage ranges this season.

That some plants will yield a surplus in certain localities, while in others the same plants have never been known to do so, also seems quite certain. But it can be seen that, while general conditions can, in a measure, be forecasted, local districts may secure surplus in spite of general *off* conditions, and the season would, of necessity, have to be very bad indeed if some honey from wild flora were not secured.

* * *

I have returned from my ten-day trip among the beekeepers of Southern California. To say that I enjoyed the journey would be putting it mildly, though it was not by any means a continual round of pleasure, and it ended much short of the territory I had planned to cover—due, largely, to the fact that I found many more beekeepers than I had thought there were, all of whom gave me such a cordial reception that oftentimes it afforded more pleasure to tarry than to travel on.

To give in this department the details of my trip would be impossible, so I will give only a summary of certain conditions that struck me most forcibly.

First, I am more nearly convinced than ever that there is a condition expressed by two words that have more to do with our honey-flows than any other one thing; and that is, *late moisture*.

Second, that there are conditions that

surround some of our heaviest-yielding localities that make them less desirable than some that do not have such an abundance of flora, or that yield as light a grade of honey.

Third, that beekeepers are a demoralized set so far as being organized or alive to their own interests. Nearly 75 per cent do not take a bee-journal, and can not be induced to do so. Some, when asked if they belonged to the State Beekeepers' Association, asserted that they had never heard of such an organization.

Let me now return to the first of the three given subjects, that of moisture. This does not mean rainfall entirely, though that is the chief factor in every case, directly or indirectly, and is also the first essential. The nature of soil and its adaptability to holding moisture is a great factor. Rain belts and dry belts in many localities are quite distinctly marked from year to year, apparently because of air currents passing through, to, and from the mountain passes. In other words, a greater amount of rain falls in certain zones of influence than in others. Freak rains, if this term is permissible, have a part in the production in certain localities. For instance, in the neighborhood of Sage, Riverside Co., there was a fall of four inches in May, and the beekeepers in that section are being favored by a bountiful crop of late honey. In another district, near Temecula, a thunderstorm caused a heavy fall in July, which swelled the crop in that locality wonderfully, while down along the moist lands of the Santa Ana River bed, sweet clover is said to be yielding noticeably.

Another case, much nearer home, is at Perris, Cal., where there was an exceptionally heavy thunderstorm early in the summer, and more than half an inch late in August. In that locality bees were drawing comb, storing honey, and breeding nicely.

The altitude is also a factor that must be considered. Naturally the higher altitudes get the heaviest rainfall, are the coolest during the summer, and retain their moisture longer than down in the blistering valleys. Regarding late moisture, as set forth above, I have dwelt on local conditions rather than general, yet the advantage of late general spring rains, following a sufficient winter fall to start the growth of honey-plants, is the greatest factor of all in producing bumper crops, such as we had in 1905.

Beekkeeping in the Southwest

LOUIS SCHOLL, New Braunfels, Texas.

COMB OR EXTRACTED HONEY?

This question has often arisen, and has been discussed at length. It was not long ago when the arguments were in favor of extracted-honey production. The tide is drifting the other way, for we find that there is now a better demand and price for comb honey, and consequently its production should follow. We remember well when these discussions were in full sway, and we decided to drift more and more to the comb-honey side, for the very reason that there would be a better demand for this product if everybody else produced extracted honey. The result is that we are to-day advertising our business as exclusive comb-honey producers and shippers, and we have found that it has paid us to stand by comb honey. The demand for that kind has increased from year to year, in spite of the efforts on the part of the extracted-honey producers to advertise the cheapness and better value of extracted honey for the consumer.

We find to-day that the demand for comb honey is brisk here in the South, and at a good price, while extracted is begging for a market at the present time, and that at a lower price, in comparison to the comb honey, than ever before in our experience. While it may be cheaper to produce extracted honey, we have found that it is much easier to sell comb honey.

Of course, we are referring to bulk comb honey, a product that fills the bill for the masses as well as the richer class who want full value for their money.

COTTON HONEY VALUABLE.

We have found cotton honey to be a valuable product in Central and North Texas territories, and the apiarist who has his bees located within range of extensive cotton areas can count on at least an average crop, year after year, with more certainty than many of the other numerous honey-yielders that we have.

It is but a few years, comparatively, since cotton came into prominence as a honey-yielding plant. Years ago cotton honey was hardly known, this being due, perhaps, to the fact that the honey which the bees obtained from the cotton was attributed to some other source. But of late years, especially when it is grown on rich land, in valleys and river bottoms where the growth is luxuriant, cotton has come

to be known as one of the very best honey-yielding plants. It yields best when the atmosphere is warm and damp. On poor soil or on sandy land it does not yield nectar plentifully, and, in some cases, not at all. In the average season a good yield may be expected from cotton in the black-land districts and in the river valleys. Under favorable conditions it is not excelled by any other nectar-yielding plant in the cotton belt.

The yield is most abundant in the early morning, and it decreases toward the middle of the day as the atmosphere becomes drier. In the afternoon, unless the season is very dry and hot, the yield begins to increase again. During cloudy days, or when the atmosphere is damp, the yield continues abundantly throughout the entire day.

The nectaries from which nectar is secreted are located under the bracts next to the stem of the blossom. There are other nectaries located on the under side of the leaves, one on each of the three main ribs of the leaf. They can easily be located as small low indentations on both blossoms and leaves. There are three under each blossom, and those located on the ribs of the leaves are located about a third of the length from the main stem of the leaf. At the proper maturity of both buds or blossoms and young leaves, the nectar may be easily seen in a large drop in each nectary, and is easily gathered by the bees. During favorable conditions it is not necessary for the buds or "squares," as these are called, on the cotton plant, to develop into full bloom, but nectar secretion begins before the blossoms open.

Cotton honey is very light in color and mild in flavor when thoroughly ripened, and it compares favorably with the very best grades of honey. Honey from upland cotton, or that which is grown on poorer soil, has a slight amber color. When first gathered, cotton honey has a flavor which is very characteristic of the sap of the cotton plant itself; but this disappears as the honey ripens. During a heavy flow there is a strong odor in the apiary like that produced by bruising cotton leaves.

Ordinarily, cotton honey granulates easily, and in the granulated form is almost pure white and very fine-grained.

The flow begins ordinarily about July 1 and continues until frost, except when the fall of the year is a very dry one that causes the cotton to stop growing.

Conversations with Doolittle

At Borodino, New York.

BEE-CELLARS—CONTINUED.

"I have done some thinking about beecellars since I was here before, and have come near to the conclusion that it will pay me to build a special cellar."

"What is the lay of the land near your apiary?"

"On the west of it, and facing the east, is a rather abrupt hill, rising about twelve feet high. The base of this hill comes near the center of the beeyard on the west. Will that be a good place for the cellar?"

"Most admirable; for where a cellar can be placed in a side hill, having a slope more or less abrupt, and the slope being on the side where the entrance is desired, the question of ease of access is settled, so that the labor of carrying in and setting out will be much less fatiguing than where from three to eight steps for a stairway have to be used. Then where the entrance can be on the east side, it is much easier to guard against the cold, and at the same time it guards fully as much against the heat of the sun in February, March, and April. The entrance provides also against the extreme high winds of the west which rage to a great extent above all others in this section. By the removal of very little earth you can have an entrance on a level with the bottom of your cellar, so that with a wheelbarrow or a hive cart the bees can be run right into the cellar, thus saving a lot of hard lugging and lifting."

"The soil of this hill is a sort of gravel. Will this be as good as any?"

"Many prefer sandy or gravelly soil, as there is less danger of dampness. But to my mind it makes very little difference. At the farmer's cellar, where my out-apiary is situated, water runs right through it in slight depressions cut for this purpose in a stiff clay soil, at all times when the ground is at all wet from fall rains; but so far as I can see, the bees winter there as well as anywhere. If the stores are good, bees seem to winter well in almost any cellar where an even temperature at some point between 38 and 45 degrees can be maintained. But with a cellar where the temperature is unstable, going anywhere from below the freezing-point up to sixty one week, and back again the next, or where it changes with every change outside, poor wintering is apt to result, no matter what the soil is."

"What about proper protection?"

"Having your excavation made to the

amount of about two square feet for each colony you expect to winter, say 8x25 square feet for 100 colonies as the floor surface, you will build permanent walls all around the sides about 7 feet high, but the top of the wall should not come more than six inches above the surface of the ground, or just enough to turn off all surface water at any time the soil might become excessively saturated with water. On top of these walls should be placed old or worn railroad rails, cut to the proper length if you can possibly get them, and on these put flagstones; or a covering of concrete can be made of suitable thickness to hold the earth which is to be placed on top, to a depth of at least three feet. Four feet would be better still. Over this earth is to be built a cover of some kind which will shed water. After the first year this covering of earth will remain dry, as the heat of summer will make all this as dry as dust. With four feet of earth over such a special cellar in a side hill, the temperature will not vary more than five degrees during the whole winter. Often during the whole winter, after the bees get settled down from being carried in, there is not two degrees variation in my cellar built on this plan, the mercury standing from 42 to 44 degrees during the five months while the bees are in this cellar. The doorway into the cellar should have 'wing' walls, turned at right angles for three doors, which should be two feet apart, thus enclosing two dead-air spaces of two feet each when the doors are shut. This is very essential to the maintaining of perfect protection and an even temperature."

"What about ventilation?"

"This is a matter I am not wholly certain about. I have wintered bees with abundant ventilation provided through what is known as sub-earth ventilators, which take the air from 100 to 200 feet away from the cellar, and carry it under ground at a depth of two or more feet, so that it becomes the same temperature as the cellar by the time it enters it. I have also wintered bees without any provision being made for air, keeping the cellar as close as possible, and secured fully as good results as I did when I had the ventilation."

[We know that Mr. Doolittle has had good success with his cellar; but nearly every other beekeeper has secured far better results with abundant ventilation.—ED.]

General Correspondence

THE SECRET OF THE FLOWERS

BY P. F. X. RYAN

The glorious diadems which are studded so bountifully over Nature's beautiful vesture have always possessed a peculiar charm for me; and greatly, therefore, did I welcome Mr. J. H. Lovell's learned effort to penetrate the hidden meaning of these mysterious gems of Nature, and to ascribe to them some significance, real, not fanciful, as is the case with the conventional "language" so dear to lovers. My object in writing is to offer a friendly criticism of a few points on which "I have my doubts," and I am confident that Mr. Lovell will rejoice to find some one ready to use the pruning-knife of friendly criticism on his work, and, if need be, to write further to elucidate such matters as may be doubtful or otherwise called in question. It is far from my intention to brandish the battle-ax of censure; and if I appear to do so, I pray he will forgive.

Referring to page 21, Jan. 1, it seems to me Gray was well within the mark in his assertion that

Full many a flower is born to blush unseen,
And waste its sweetness on the desert air;
for, as far as we can judge, in many instances all their glory is bootless, for there are "full many" which are self-pollinating, and even inaccessible to insects. They can not, therefore, take cover under the cloak of usefulness to insects as a *raison d'être* for their beauty and sweetness. They are, then, so to speak, "wasted on the desert air," though, of course, they proclaim the glory of the king who, clad himself in golden raiment, transmits a shimmering luster to Nature's habiliments.

However much Sprengel's opinion (page 22), that the bright hues of flowers serve as signboards to nectar-loving insects, may have gained ground, I must confess that I am personally somewhat skeptical; for I find the theory (and it is at most only a theory) confronted by many ugly facts. Nothing is more unscientific, and to me nothing is more distasteful, than to see scientific men making hasty generalizations, or parading scientific hypotheses in the garb of facts. Lubbock makes an assertion similar to Sprengel's, that the very arrangement of the colors, the circular bands and radiating lines, are all with reference to the visits of insects. Why, then, I ask, is the apple-blossom painted on the *back* and not on the *front*? Here, surely, is an instance of the complete un-

satisfactoriness of their contention, for the color of the *outside* is just about as useful an indication to the insects of the location of the nectar as a book's cover is to the scientist in quest of an article on paleontology in a work on evolution.

Let us take the case of wild flowers. Mr. Grant Allen, whose views in many ways seem to coincide with those of Mr. Lovell, points out that the *irregular* flowers are *variegated*, while *regular* forms have almost always a marked *uniformity*. If the insects were in need of a clue to aid them in their search for nectar, surely this clue would be more needful in regular form. But, as I have said, the variegations are in the *irregular forms*.

In pinks the color-bands run *transversely* to the course of honey-seekers, so that, if these finger-posts are trusted to, they play the poor little insects false, which is not in accordance with the habitual workings of kind Nature.

In the milkwort (*Polygala*) the sepals are the conspicuous part, and their veins are as clearly defined as many other petals; but the color indication leads just to where the honey is not; so it is evident that the weary insect in quest of nectar would be as badly fooled, if he trusted in these unreliable advertisements, as the weary traveler who, on seeing in the advertisements of a well-known hostelry every indication of the "home when from home" which he desires, and repairs thereto, only to find a magnificent *bar*. For bed and board he must apply elsewhere. I tried to enter on a study of the problem which Mr. Lovell treats so exhaustively, with a mind free from bias, and now make the candid admission that I have concluded my investigations by entertaining a learned doubt on the matter, pending the framing of a hypothesis which will give a more intelligent explanation of observed facts.

Having thus controverted Sprengel's major proposition, that the lines, dots, etc., serve as finger-posts in all cases, I reject his inference that the general color of the corolla advertises to insects, even when afar off, the presence of the desired nectar. I have known many instances of insects visiting flowers which secrete no honey at all. Are they the victims of a kind of confidence trick? If the color does all that is claimed for it, why have they not become acquainted with the meaning of the label, and why do they not refrain from wasting time in long tours of inspection which in every case prove to be fruitless?

Even Lubbock suggests that the object of their visits is a vain search for honey. The school of which Mr. Lovell seems to be a mild disciple insists that flowers require insects to assist in their propagation, and therefore must attract insects; and those which are the most attractive succeed best in the struggle which is so essential a part of Darwin's theories. But we have the order of cryptogams—ferns, etc., which owe not one tittle to the insect world. Sprengel says, "It seems that Nature is unwilling that any flower should be fertilized by its own pollen," and Mr. Lovell mentions that Darwin discovered that frequent crosses increase the vigor and productiveness of the stock, and that an occasional cross is indispensable.

But, on the other hand, Sir John Lubbock admits that the majority of flowers have retained the power of self-fertilization; and not only, indeed, have they retained the power, but their vigor and vitality are hardly rivaled by any crossbreds. The "lady's smock" (*Cardamine pratensis*) is prolific to a remarkable degree, and its flowers are incapable of fertilization. The Herefordshire "red streak" has existed now for close on to three centuries in spite of the fact that it is self-propagating; and there is not the faintest hope of its being rapidly exterminated, let alone dying out. The lesser celandine (*Ranunculus ficaria*) indulges in a wealth of blossoms, and appears in early spring when very few insects are astir. It contains not a single ripened head, and yet it multiplies prolifically. These instances surely upset Darwin's "Nature abhors perpetual self-fertilization." For a cross we require two plants; but in the case just cited we have not even two distinct organs. Those flowers which are propagated by buds and slips evince no disposition to realize Darwin's dream of their extinction; and, in spite of Nature's alleged abhorrence, they hold the fort.

On page 54, Jan. 15, Mr. Lovell says that "occasionally irregular flowers revert to ancestral stages and produce regular forms." "Occasionally," Mr. Lovell? What of the law discovered by Mendel? Some forty years ago George Mendel made his classical experiments with the common garden pea, in the case of which he abundantly proved a return to the parental forms. He experimented with seven pairs of characters which he crossed and left to self-fertilize. In the case of the crossing of the tall and dwarf pea he found that the first generation exhibited the characters of one parent only—that is to say,

all were tall. But the tall form, although for the time being subduing the dwarf, did not destroy its vital principle, which remained potentially in the tall form. In the second generation the dwarf parentage asserted itself, and 75 per cent displayed the dominant features (those of the tall), and 25 per cent those of the dwarf. The 25 per cent bred true to their dwarf ancestral type constantly and invariably. The 75 per cent bred 25 per cent true to their tall parent, the remaining 50 per cent being impure dominants. With these 50 per cent the history of their ancestors repeats itself. Here, then, the irregular form unmistakably "reverted to ancestral stages and produced regular forms."

On page 53 "beautiful flowers," and on page 239, April 15, "highly colored flowers," are designed for insects, and exist only where they can behold them. Where is there a more highly colored flower than the poppy? and yet it contributes not one iota of nectar to its insect visitors. If a casual connection between the gaudy-colored flowers and the insect world is to be established, or if they can in any way be said to be correlated, it seems that the flowers which have not the wealth of color, and which, consequently, have not been designed for insects, should not have any claim to their patronage; yet the common mignonette, the least likely to appeal to one's esthetic taste, and in which Nature has certainly not been prodigal of her paint, is most popular in the bee world. So also clover—perhaps the greatest honey-plant on earth. Still further is this statement of Mr. Lovell's controverted by the unobtrusive sycamore and lime (basswood) trees. On page 313, May 15, Mr. Lovell lets slip the statement that white flowers probably exceed all others in importance to beekeepers, which seems a little inconsistent in the face of his opinion on highly colored flowers just referred to, and in view of his reference to blue flowers on page 239 and 241, April 15. Blue flowers are not pre-eminently honey-bearing. In a vast acreage of blue hyacinths we do not see as many bees as in the inconspicuous and unpretentious green tassels of the sycamore. Heather and mignonette compare more than favorably with the speedwells and harebells, and even with the sage.

Here, too, is a very peculiar fact: The violet is blue alike in summer and spring. Why, then, is the spring violet popular with insects when the summer ones are denied the courtesy of their visits? Why, further—and this is a serious difficulty to

the Darwinian school—do not the spring violets, with their galaxy of insect friends, produce more seed than their summer sisters?

On page 53, Jan. 15, Mr. Lovell gives the prismatic colors as six. Does he not omit a seventh—indigo?

A word now about Haeckel, page 237, April 15. Ernst Haeckel is described by Mr. Lovell as "one of the most eminent of living biologists." This, I feel, is an overgenerous assessment of the scientific worth of the Jena biologist. First and foremost, Haeckel as an atheist bases his scientific investigations on a false foundation, and his views, consequently, can be taken only *cum grano salis* by Christians. A man who speaks of the fortuitous concourse of atoms, who does not postulate an internal law and a master hand to direct the destinies of all created matter, but, on the contrary, assumes the existence of random variation in this world of order, is not only a strange anomaly, but, in my opinion, sacrifices all his right to the name of a true scientist. The leading scientists of to-day reject Haeckel. In his lectures on the "Problem of Man," 1908, he dragged his scientific honor in the mire of falsehood, and, clothed in this robe of scorn, he can be regarded in no other light than that of a common forger. Haeckel's boldness made Darwin tremble; but Haeckel's boldness led an eminent scientist, Doctor Brass, to probe his allegedly scientific discoveries, with the result that he openly accused him of forging certain plates, and, moreover, drew from him the admission *that eight per cent of his drawings were falsified*. Here, then, is the evolutionist at large, claiming to be a scientist, and obtaining the much sought missing link by overt forgery!

And now let me conclude with a word with friend Crane, whose Siftings are a never ending source of pleasure and information to me. With him I cordially appreciate Mr. Lovell's erudite articles, page 153, March 15; but he introduces a doctrinal point on which I must beg to differ. It seems rather out of the way to speak of the Man-God as learning any thing from the hills and valleys, flowers, etc. If I mistake not, he was invested with all human science, and had naught to learn from his own creatures. And did he *command* us to consider the lilies? His words were, of course, addressed to the people about him, and even then could hardly have referred to constant meditation on these things, since he was only illustrating the providence of God. If he cared for

the lilies *a fortiori*, man's wants would not be neglected. In any case, it is no more binding to-day than the laws relative to ablutions, purifications, and circumcision of the old dispensation; and who, on reflection, will say it is "as much a command" as to say, for instance, "Thou shalt not steal"? Friend Crane also seems to understand the lily of our modern flowers; but it is really the anemone. In the Scriptural allusions the lily grew in the valley among thorns, in rivers, and in places where the shepherds led their flocks—in fact, almost everywhere, since the multiplication of the Jews is likened to it. On the occasion in question, Christ evidently pointed to some of them; and they must have been numerous or he would not have used the illustration. If the white lily is understood, Holy Scripture can not be explained, since it is known only a little in the north of Palestine, and even there it requires to be cultivated. It does not grow among rivers, etc., nor can the lips (as in the Canticles) be compared to it. The anemone, on the other hand, answers all the descriptions, and is appropriate to all texts.

Napier, Hawkes Bay, N. Z., July 14.

Bee Thoughts

The sun is up, the clouds are gray,
And promise now a pleasant day;
The earth is fresh and fair and bright,
And clover-fields are red and white.
The birds are on the wing, and we
Will go into the fields and see
If nectar in the flowers is found—
Enjoy the beauty all around.
What pleasure rare, what pure delight,
To wing the air this morning bright!
To leave the crowded hive, and fly
Above the earth, beneath the sky!
Now over pastures, flocks, and herds,
And meadows full of singing birds,
Past worthless flowers and rocks and rills,
By waving grain and wood-clad hills,
To scent the fragrant clover-fields,
And sip the sweet each floret yields,
Or rest beneath the shade, and sup
From many a linden's nectar-cup.
Nor yet forget, the while we roam,
To gather bread for babes at home.
Thrice blessed home! O mother! queen!
No bee like you was ever seen.
When we return, and flight is o'er,
Two pollen loaves, with nectar store,
We bring back to our home, and give,
And know the joy it is to live.
Our lives are brief, our days are few;
We pass away like morning dew;
And so we work with all our might—
Make play of work, for that is right.
And thus, by turning work to play,
We make the most of life each day.
Oh what a charming world is this,
When work is play and sweetest bliss!

J. E. CRANE.

GOT INTO BUSINESS AT ONCE

BY EDWARD F. BIGELOW

The ways of honeybees, especially their relations to the queen, are often surprising. Sometimes there is great difficulty in introducing a queen by any method; but once in a while it seems as if the bees were

extraordinarily desirous of a queen, and remarkably expeditious in liberating her. I recently had three queens come in by mail. Two of these caused a great amount of trouble and prolonged fussing and experimenting; but one was received more quickly, and began to lay eggs sooner, than any others with which I have ever

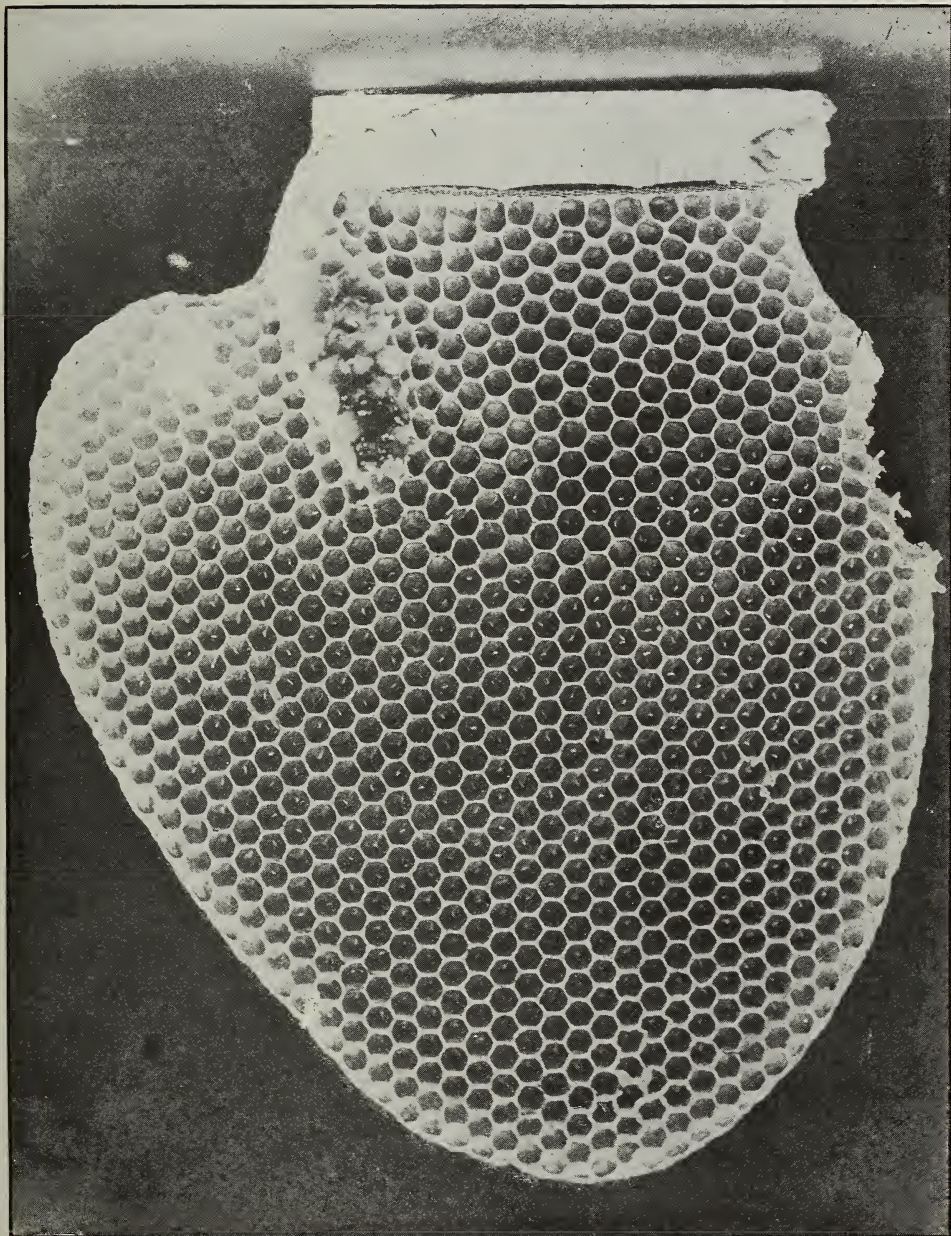


FIG. 1.—Piece of comb which the bees built down from an introducing-cage. Notice that the new queen immediately laid in nearly every cell.

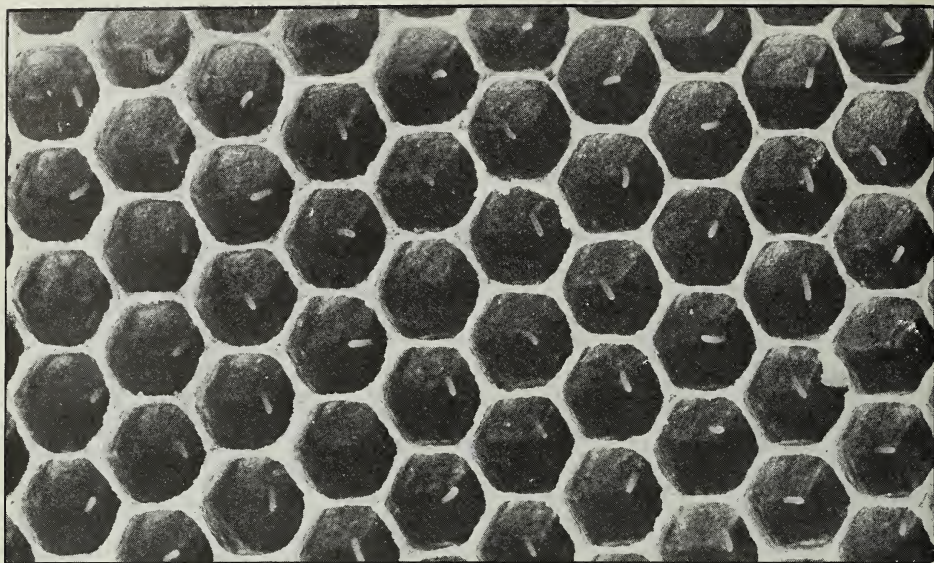


Fig. 2.—Close view of eggs. Notice the cell in the lower left-hand corner contains two eggs, while that at the right-hand corner has a larva.

experimented. I opened the hive about ten hours after the cage was put in, and discovered that the bees had nearly eaten out the cardboard and candy in order to release her. I thought that, as every thing was progressing so well, I would leave the arrangements undisturbed for two days more. Imagine my surprise upon opening the hive to find a large piece of honeycomb hanging to the queen-cage, with almost every cell containing an egg. The queen had completed her task on this newly constructed comb, and had made good headway on a comb foundation of the regular size that the bees had drawn out. Such diligence is a joy, and that queen and her adopted daughters are the pride of this apiary.

Arcadia, Sound Beach, Ct.

[The two engravings and the cover for this issue show the eggs that this queen laid so quickly. In Fig. 2 a larva is shown in the upper left-hand corner. This photograph was probably taken at least three days after the eggs were laid, else there would not have been time for this particular egg to hatch. See editorial.—ED.]

BETLES THAT MADE THE BEES CROSS

BY J. M. FRANCIS.

We amateurs are constantly meeting with wonderful experiences which are quite familiar to the older beekeepers. Neverthe-

less, as I am looking for information I beg to say that, though I have been associated with bees more or less since I was a barefoot boy, and have commenced within the last year and a half beekeeping in a modest way, I am up against a proposition at the present time which has puzzled me not a little. I have three stands of Italian bees which, up to within the last thirty days, have been exceedingly gentle and tractable. I have never hesitated to pull the hives all to pieces, under proper weather conditions, without using any protection for the hands or face, and sometimes I do not find it necessary to resort to smoking. Imagine my surprise during the past three or four weeks to find my bees so ill-natured that one can hardly approach within twenty feet of them without meeting a hostile reception. I was much puzzled by this until I noticed that there were two or three balls of angry bees in the front of each hive, and on further investigation found that the center of these balls was composed of a beetle.

Our entomologist has informed me that this is the insect ordinarily known as the "bumble-flower beetle," or "June beetle" (*Euphonia Inda*), which is quite common in all of the Northern States. It usually feeds on the pollen of flowers, and, later in the season, upon ripened fruit. Undoubtedly the odor of the honey attracts these beetles, and they attempt to force their way into the hives. It then becomes

a struggle which lasts day and night. The bees cover the beetle, but find it impossible to sting it to death because it is covered with a horny sheath. They finally succeed in dragging it out a few inches, and then the beetle deliberately begins to force its way back to the entrance of the hive. They have been such a pest in my yard that I have killed 16 on one hive in a single week. You can imagine that this continual fight against the beetle has spoiled the tempers of the bees, so that they cease to draw any distinction between the beetle with the hard skin and the man with the soft one.

BACK-LOT PROFIT.

Before closing I beg to say that the year 1912 has certainly proved to my satisfaction that bees can be kept with profit in a city backyard. In April, 1911, I purchased a three-frame nucleus and tested queen which built up into a magnificent colony during the season. Honey was so scarce that I found it necessary to feed about 20 pounds of sugar in the late fall, but this was money well spent, as the hive came out of the cellar in April, 1912, with a tremendous colony well supplied with stores. In the early part of May this original colony swarmed, and from these two colonies I have already taken off over 150 lbs. of beautiful white-clover honey, nearly half of it in sections. Aside from this, both hives are running over with bees, and every particle of available space is

filled with white-clover honey, which is sealed for the winter. There is practically no pasturage nearer than a mile and a half, and it is very likely that a great deal of this honey was gathered as far as three miles away.

For the benefit of any office man who may see this, I would say that I should keep one or two colonies of bees for the mere pleasure of observing them, even if they did not yield a pound of honey in excess of their own requirements. To one who has the slightest taste for such things it is a great relaxation and pleasure to leave the office, to forget business worries, and study nature at first hand. Such little incidents as beetles and an excess of queens at the time of supersedure merely add interest and pleasurable excitement.

Detroit, Mich., Sept. 11.

FOUR ENTRANCES ON ONE SIDE OF A WINTER CASE

BY F. F. GEORGE

In my apiary I have 62 colonies of hybrid bees, 1 to 4 in a case, as shown in the engraving. The cases are packed in winter with a mixture of chaff and sawdust. I find that the hieroglyphics on the hive fronts do not prevent the bees from occasionally getting into the wrong hive.

The contracted entrances indicate new swarms. A dummy can be slipped from



George's packing-cases with the entrances all on one side.



Sweet clover that grew luxuriantly near a place where oats had been unloaded from a car, showing that the seed was mixed with the oats.

under the hive leaving a two-inch space for air. No swarms issued this season. The stake at the left holds a bundle of ripe mullein heads, which is my swarm-catcher.

The small hives in front are double-walled, and there are three apartments to hold nuclei for queen-raising.

Fraser, Idaho.

[If you had located your entrances on opposite sides of the cases, two on a side, we do not think you would have much trouble from bees getting into the wrong place.—Ed].

SWEET-CLOVER SEED IN OATS

BY GEORGE REX, JR.

The engraving shows a honey-plant which grows about 5 feet high, and branches out freely. It produces white flowers in profusion, which the bees simply swarm over. The flowers are very fragrant, and one can smell it from a distance.

I think it is something of a wild alfalfa clover. It grows at an old abandoned wharf, and covers about half an acre. I was informed that at this place western

oats were unloaded from the railroad, and that the seeds must have been in the oats. What do you think it is?

Stettlersville, Pa., July 24.

[Unless we are greatly mistaken this plant is the white sweet clover.—Ed.]

DO BEES LOSE THEIR STINGS WHEN THEY STING OTHER BEES?

BY L. P. HOLMES

An expression in the footnote to Dr. Miller's Straw, p. 540, struck me with surprise. It is that "worker bees sacrifice themselves as well as the drones" if they sting them. I thought it was an established fact that bees, in stinging others, do not lose their stings, consequently do not endanger their own lives. I ask now, for my own information, has any one ever seen the sting of one bee attached to another that has been stung to death? I never have. Among all the bees stung to death in robbing, and among queens that have been stung to death by other queens or by workers, I have never seen the sting of another bee attached to a dead one. I have seen a virgin queen, upon being introduced to

a stranger colony, seize three workers in succession and sting them to death, still retaining her sting. My observation of the process of stinging another bee has shown me in every instance that the point of attack aimed at is the small aperture in the thorax through which the viscera is connected with the abdomen. Unless this point can be penetrated by the sting, the attacked bee is apparently safe from harm.

It seems to be necessary for success that the attacking bee should get upon the victim's back. I have watched two queens fighting, and noticed that, when they clinch face to face, the hinder and middle legs are used very effectively to push away the opponent's sting, while using every effort to reach the vulnerable point at the waist. I once watched them fighting in this way for what seemed to me to be 15 minutes (I did not time them by my watch). They fought until exhausted, and quit for a rest. After a time they tried again with no result. In the third round one got upon the other's back, and the fight was at an end. If I am right on this point, a worker would run no risk to herself in stinging a drone.

Still, I incline to the belief expressed by the editor and Dr. Miller that the action of the workers toward the drones is in most cases, at least, a bluff. I have never, so far as I can remember, seen the drones curl up as the workers do when stung.

Frankfort, Kan.

[The sting of a queen is a little different from that of a worker, and it is probable that it is more easily withdrawn. It may be that workers are able to withdraw their stings when they sting other bees; but, nevertheless, there have been plenty of dead workers found with stings in their bodies. This, however, does not prove that the workers *always* lose their stings when stinging other bees. In fact, it is quite probable that they frequently do withdraw them. We should like to hear from others. —Ed.]

AN AVERAGE OF 103 POUNDS OF SUMAC COMB HONEY IN 14 DAYS

BY W. S. BASIM

The engraving shows a part of my beeyard (ground is too rough to get all colonies). This picture was taken July 4, 1911, at 4 P. M., when the honey-flow was nearly done. The tall hive holds a small colony guarding combs of honey.

My average yield was a fraction less than 103 lbs. of honey in 4 x 5 sections. The best yield ever before was 67 lbs. We had no clover last year, and this honey was almost all gathered in 14 days from sumac. I never had such a honey-flow since I have been in the bee business. No colony got the swarming fever.

Vincent, O.



Corner of W. S. Basim's apiary from which he secured an average of 103 sections of sumac honey per colony in 14 days.



Apiary of Clem Le Moine, Luton, Ia., that was nearly destroyed by a flood last spring.

APIARY NEARLY DESTROYED BY A FLOOD

BY CLEM LEMOINE

My apiary was nearly ruined by a flood last spring which entered in the cove. The picture shows some of the bees which were saved on April 23, 1912, when it was still very cold. This apiary had to be worked for increase only this season.

Luton, Ia., June 7.

THE CRAZE FOR COLOR

Breeding for Appearance has Resulted in a Poorer Strain of Italians

BY MAJOR SHALLARD

I have been asked which I prefer—the light Italians or the dark. My experience leads me to believe that there is no comparison. I think the dark leather-colored are as much ahead of the light goldens as a draft horse is ahead of a saddle back for plowing purposes.

Many years ago, when I first started beekeeping, somewhere about the time A. I. R. used to tell us all about Blue Eyes in GLEANINGS, I started to breed a race of utility bees based on dark leather-colored stock. After ten or twelve years of breeding from only those queens whose progeny showed marked ability to get honey, I had a breed of bees which I can since see were superlatively good. I did not appreciate just how good these bees were until the last few years. I got splendid crops, and my hives used to be always boiling over with bees. I did not care how dark a queen was as long as the markings on her progeny were even; but she

had to have certain qualities. First, her progeny had to be exceptionally good honey-getters; then she herself had to be large and well proportioned. She had to lay good plump eggs, and all in the same position in the cells. I get letters like this every now and then from old customers:

Send me another leather-colored queen. The last I had was a great honey-getter, and her daughters are just as good.

I have to return the money and tell them I have lost the breed. My output got so big that I started a bottling business in Sydney, and I had to leave the care of my bees to some one else.

Then the craze came in for golden Italians. I wish I had never seen them. I got some, and between carelessness on the part of my beekeeper, and breeding from golden stock, my choice breed of leather-colored bees was a thing of the past, almost before I recognized the fact. I have got back to the bees myself since, and I have tried many times to get a new start on dark leather-colored stock; but I have never succeeded. I have got leather-colored (?) queens from breeders many times, but they were all too light. It seems to me there are no leather-colored bees left; no one seems to have any. I do not know a single apiary where there are any of the old stock. I have walked through every apiary I know of, looking for the old sort, and have never found them. I have had beekeepers offer me any queen I liked in the apiary for nothing; and after looking at all the "golden beauties," I have come away without any. Now you will, perhaps, say that I am prejudiced. I am not. I am a man who cares nothing for looks, and that is all I think the goldens

have in their favor. I go strictly on utility.

I have had queen-buyers come to the yard and pick out a golden and take it away, against my advice to take a leather-colored queen that was really worth twice as much. It was the appearance and color that got them. They could not resist the looks. When I was a young fellow the Black Spanish fowl was the finest egg-layer one could get; but the fanciers start-

ed to breed "for feather," and they bred all the ability out of it, so that now as a breed it is completely ruined. My fixed opinion is that the same has been done for bees. It has been color, color, color, all along, and the business side has been lost sight of.

I was through the apiary some years ago of (I believe) the best queen-breeder in Australia, and he showed me 26 hives of his very choicest and best-bred bees. They were as gentle as so many flies; they were as golden as sovereigns; all the bees were evenly marked; but they were the laziest bees and the poorest honey-getters in the whole yard. He bred for color, and got his bees into the condition I told him he would, some years earlier. He had bred all the utility out in trying to breed color in.

You have something to say in the issue of June 1, p. 327, on five-banded stock. Of course, your remarks are right, to the extent that, if a man advertises five-banded stock, he should not send out four; but why do the people want five-banded stock? Would a ten-banded bee be any better than the old three-banded bees of the old Ligurian strain? My experience is that they are not half as good. I notice the gentleman eulogizes his golden drones. I never had any bee disease, or much, in my apiaries until I got golden drones. I have never had such big crops as before I got them. I believe the American breeders have done the industry a lot of harm, weakened the race of bees, and made them more liable to disease, and destroyed their honey-gathering qualities by the craze for color. The trouble is not irreparable. Go back to scratch and start fresh. Breed for the big dark three-banded fellows we used to have



Wilson's nursery and introducing-frame.

before the yellow craze came along, and all will be well.

Mororo, N. S. Wales, Australia.

[It is hardly necessary for us to state that Major Shallard almost echoes our experience. Some day the craze for color will give place to honey-gathering qualities.—Ed.]

A COMBINED NURSERY AND INTRODUCING FRAME

BY W. H. WILSON

The photo shows my queen nursery, which I find very useful in saving young queens. I also use it as an introducing medium. The young queens hatch out in the different apartments, where they find plenty of candy; and when I want to introduce one I simply open the port opening into the desired queen, and let the bees eat out the honey and release her.

Byesville, O.

[Queen nurseries are very convenient to have, especially if a lot of cells are ripe at the same time and there are not enough nuclei to go around. Under such circumstances the nursery acts as an overflow receptacle.—Ed.]

WHY DID THE EUROPEAN FOUL BROOD DISAPPEAR?

Did the Change of Feed Cure the Disease?

BY CHAS. S. SHARP

Late last summer I opened three of my hives with a hive-tool that I had used the day before in inspecting several colonies that were afflicted with European foul brood. I did not use the same hive-tool through ignorance, but through thoughtlessness. Two weeks later I thought I de-

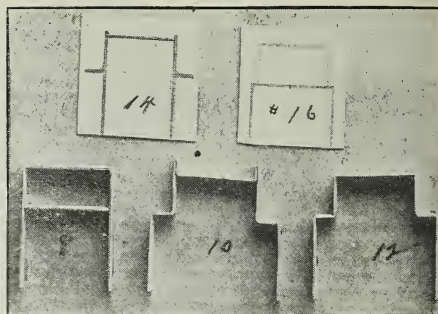
tected symptoms of European foul brood. A week later my suspicions were confirmed. The disease did not become extremely bad, owing to the honey-flow from golden-rod and aster; but it was very noticeable on all the combs of each of the three hives. About the first of October I extracted every drop of honey from those hives and started to feed a little sugar syrup for a few nights until I could get some cut loaf sugar from down town. I put a super on top of the hive and dumped in ten pounds of cut loaf sugar all over the top of the frames, placed a piece of burlap on top of the sugar, and filled the super with sawdust. This spring, as soon as they would take syrup, I commenced to feed them and took off the cube sugar that remained (about three pounds each). These colonies are strong and vigorous, and up to date do not show a sign or symptom of European foul brood.

The point I wish to raise is this: Is this method or plan a cure for the disease when it is contracted too late in the season to attempt to cure by shaking? As I haven't any afflicted colonies I am unable to carry the experiment any further this year, and I am very certain I do not intend to procure any diseased colonies to satisfy my curiosity.

I wish three or four of the older beekeepers would try this plan, and let us hear the result next spring; but I would caution the beginner not to try it, for the mere fact that it appears in GLEANINGS does not prove it is a sure cure.

Newark, N. J., Sept. 7.

[We question whether your procedure in the above case cured the disease. European foul brood is an elusive trouble which sometimes disappears during a honey-flow without any treatment whatever. Perhaps when you extracted all the honey and commenced feeding the sugar syrup you imitated a honey-flow and encouraged the bees to "clean house." Getting rid of the honey would seem to be a good thing, although enough of it would remain in the cells, probably, to transmit the disease were the conditions favorable. And there are some plans for treating European foul brood in which the honey is not taken away at all, such as the Alexander plan for instance. We are not saying that the disease in your case would have disappeared of itself, but we merely wish to make the point that it often does, so that beekeepers are sometimes deceived in supposing that some manipulation accounts for the disappearance, when in reality the bees merely clean house themselves.—Ed.]



Different forms of the stand.

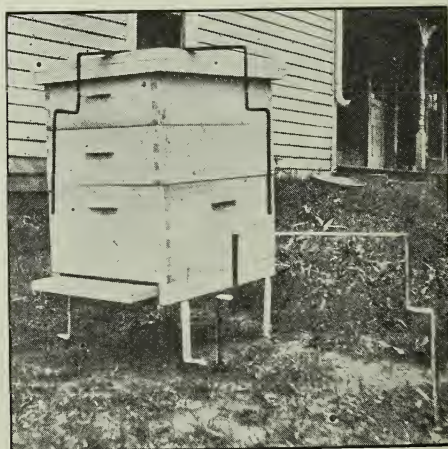
AN IRON HIVE-STAND

BY WM. RICHARDSON

I am sending you a picture of five different styles of hive stands, the last form of which I already have in use as shown in the second picture. As you can see, they are to be pushed down into the ground as far as the first projection. I do not think they would be too expensive.

Culleoka, Tenn.

[The first expense of the hive-stands would be pretty high, we are afraid; and then there would be the cost of transportation, which would be a rather big item for a large apiary especially. There would be room for the toes of the feet under the hive, which would be quite an advantage, although it would seem to us that four wooden stakes would be nearly as durable, and would be much less expensive.—Ed.]



Richardson's iron hive-stand in use.

A NEW RECORD SYSTEM

How to Make Abbreviations and Signs Tell a Long Story

BY ARTHUR C. MILLER

To the making of record systems there seems to be no end; and, lest the end should be approaching, it is the writer's purpose to postpone its arrival by describing a new one.

There are three different classes of records—one for the man who is raising queens, one for the man who is increasing and building up colonies, and one for the busy honey-producer. The first is so radically apart from the other two that it should begin and remain a separate affair. Of a necessity it will differ from each system of queen-rearing and with each individual's methods.

The others, however, naturally merge one into the other, for the man making increase may be and quite likely is raising honey in the same yard, so a system should be elastic enough to cover both of these branches of apiculture.

This granted, the next question is, "What shall be recorded?" This should be answered Yankee fashion, "What is the record to be used for?" To save time. To reduce cost of operation. Then it must be simple, easy to make, and at a glance convey all the information needful in the rapid handling of colonies. At this point the need of some way of designating each colony presents itself. Numbers here as in so many other lines of human endeavor will be found to be the best. But numbers permitted to run riot are often most troublesome; so, to restrain them they must be grouped, which is another plan used in many places. As hives are not infrequently moved in some apiaries, and as such moving would cause endless confusion were the hives numbered, the stands should bear the numbers and the hive (colony) be known only by the place it occupies. This granted, the grouping of the numbers in the apiary must be considered. For the sake of clearness an apiary for 200 colonies will be used as an example. The yard is so shaped that we can have four rows of hives with fifty in a row. That makes the numbering look easier until we look for number 63, or almost any number except the ends, and those will bother unless the numbering is begun correctly. The rows must be broken up into shorter lengths, and ten makes a good and readily countable group. Furthermore, the hives may be set in pairs in each group. The numbering is beginning to take form;

but, stop a minute. The first group must have only nine hives; i. e., from 1 to 9 inclusive; the next has ten; i. e., 10 to 19 inclusive; the next has from 20 to 29, and so on. Why? Because when we look for 40 it must be in the group with the rest of the forties, not in the end of the group of the thirties, as it would be if our first group ran from 1 to 10 inclusive. This is a seemingly trivial matter; but just juggle with figures grouped in each way and see the difference. Or look at this diagram and see how readily any number may be located. (For the sake of brevity only the terminal numbers of each group are given here.)

1 - 9	10-19	20-29	30-39	40-49
50-59	60-69	70-79	80-89	90-99
100-109	110-119	120-129	130-139	140-149
150-159	160-169	170-179	180-189	190-199

No matter where one stands in the apiary, any desired number is quickly spotted. The record-book must be arranged in the same way—that is to say, each page should embrace a group of ten, the first page, however, having only nine.

Now we have reached a point where we can consider the nature and the form of the entries. Four cardinal points are to be considered, and every part of the bee culture, aside from queen-rearing, has to do with one or more of them. First: Condition of the colony as a whole. That is to say, is it a top-notcher for the time of year, or one degree less, or two degrees less? To illustrate: The top-notcher in May is a colony that is big enough for section work. The one a degree lower will do well for extracted honey, but is not quite strong enough for sections. The next-degree colonies will come up to a producing grade before the flow is over, or at once if helped from some other colony. So we can grade our colonies as 1, 2, and 3, and W, the W standing for "weak."

Later we want to know if the colony has swarmed, a swarm is expected, or is to be forced.

The second point is the queen. Who is she? How old is she? or is she missing? and if so, what is taking her place as a cell, a virgin, laying workers, or larvæ given for a queen to be raised from.

The third point has more particularly to do with increase or with building up colonies in the spring, and it is embraced in the word "brood." How many frames of

it are there? or how many are to be or have been added or taken away?

The fourth and final point is food. "Food" is more comprehensive than "stores" or "honey," for they are food. And we may have to give or take food or honey from a colony, and the food given may be honey or syrup, and honey taken may be for other colonies or surplus for ourselves.

We will arrange the four points in a group like this:

C	B
Q	F

"C" is for the condition of the colony as a whole. "Q" is for any thing relating to queens. "B" is for any thing relating to brood and bees. "F" is for any thing relating to food or crop.

If, now, we can get a set of simple signs to use in these squares, we have only to put the proper one in the proper square to tell us what it might take a dozen words to write out in long hand. And eight well known signs plus a few letters and numbers do it all. The signs are o, +, —, X, ÷, ?, >, √.

Nothing to learn about those, surely, unless, perhaps, the "arrow head," which is used for "to" or "from," and will be explained later. Three other items must be provided for, namely, the date, and whether a thing has been done or is to be done. If the date is properly handled it will tell the other two.

With this somewhat long preamble we come to the record system itself; and in laying it before you I wish to

say that it was not "invented," but was the slow outgrowth from countless efforts to secure the end now attained.

The following illustration is arranged to show some of the many points the record can cover.

The first column carries the colony numbers. The top of each column carries the date the record was made, i. e., colonies inspected, and the indicated condition found or the indicated work done.

	In 5	In 20	Pl 1						
20	1 1911 H×M	-2 +10 Fd		#		-			
21	1 1911 S×M	+10 Fd				-			
22	2 1911 M	+10 C	-3	-2		-			
23	W 1911 M	+2	Rq 1 St.	+1	? √	+			
24	1 1911 H×M	+ 2CS	?			-			
25	3 1911 H×Bk		>29		S	?			
26	1 1910 H	+ 2E×S		? ⁺ 1ES		?			
27	N V		?lg			+			
28		20	÷ >	48					
29	W 1911 Y		+25>			?			

↑
8 In.
↓

← 5 In. →

A description of these records will make the operation of the system plain.

On June 5, colony No. 20 is in No. 1 condition. The queen was from stock designated as "H," mated by a drone from stock designated as "M" and raised in 1911. Two frames of brood were taken, as shown by the "2" in the "brood" square. Ten frames of foundation were given in an upper story, as shown by + 10 fd. in the "food" square. This is taking a little liberty with the use of the title "food," but it is furnishing food-storage capacity, or brood space if the queen goes up. But despite the liberty, no mistake can be made in future reference to it. If it is especially desired to differentiate between foundation or combs above an excluder and those to which the queen has access, it may be shown as at No. 21, where the characters are placed across the horizontal line between the "brood" and "food" squares. If this plan is followed, then the record at No. 20 would mean that the foundations were above an excluder.

No. 22. Here we have a "Grade 2" colony, and it was given ten combs to which the queen was allowed access.

No. 23 was weak, and was given two frames of brood. The queen was of the strain designated as "M," and as no mating is shown it is understood she is mated to a drone of the same strain.

No. 24 was of "Grade 1," and was given two comb-honey supers.

No. 25 was "Weak;" had a queen of the "H" strain mated to a black drone.

No. 26 was of "Grade 1;" had a 1910 queen, and was given two extracting-supers.

No. 27, a nucleus with a virgin queen.

No. 28, a "Grade 1," but has twenty frames occupied. Not having any plus sign before the number 20, in "B-F" squares, means that the condition existed when examined.

No. 29 was weak; had a queen of a strain designated as "Y," usually the initial of the person from whom queen or strain was purchased is used.

In the next column, under date of June 20, we find a — sign in the "food" square, and two diagonal lines through it. The — sign was put there either June 15 or some time before the apiary was visited on the 20th. It meant that combs of honey ("food") could be drawn from that colony. None were drawn, so the sign was canceled by the two diagonal marks. That is quicker than erasing.

No. 21 was not opened.

No. 22 had three frames of brood and

two of honey taken. It goes without saying, that the places were filled with combs or foundation, so no memorandum to that effect is needed.

No. 23, in the "queen" square, is marked "Rq," put there probably June 23, to show that the colony should be requeened when a queen was available. This was done on the 25th, as shown by the "I St.," meaning that a queen from "Stewart" stock was introduced. (It is the writer's practice to dequeen and requeen at the same time.)

No. 24 shows a question-mark in the "Food" square, meaning that the "Food" condition should be inspected. This was done and everything found satisfactory, as shown by the check mark "✓."

No. 25 was removed to stand 29, and the two vertical lines stop the record.

No. 26 has a question-mark in the "food" (honey) square. Inspection made and one super taken off, and an empty one put on.

No. 27, queen square has the question-mark. The queen was found to be laying, as shown by the "lg."

No. 28 was marked for division, which was done, as indicated by the >48 in connection with the ÷ sign. The 48 was the stand number to which the removed part of 28 was taken.

No. 29 had No. 25 added to it. Of course, the poor queen of No. 25 was disposed of, and it is unnecessary to say it. If both queens were left to fight it out, "a?" would be put in the "queen" square of the next column, and at the next visit the queen condition of that colony would be ascertained.

On July 1st we find but two entries in this column. No. 23 was looked at for queen condition, and the new queen was found to be all right, as shown by the check mark "✓."

No. 24. A swarm was hived here; not known where it came from, as shown by the question-mark in the "queen" square.

The next column is marked for the work to be done on the next visit.

Apparently the yard is being run largely for increase. No. 20 can have honey taken from it. No. 21 can spare both honey and brood; No. 22 the same. No. 23 should have brood added. No. 24 will probably have supers to come off. No. 25, the swarm of July 1 needs to be considered generally: hence the question-mark in the center. No. 26, supers should be examined. No. 27, both brood and honey to be added. No. 29 asks, "How does brood and food stand since the union?"

Suppose it is July 10, when the next inspection is made. If combs of brood or

food are taken or added, the number of combs so used is placed beside the minus or plus sign. When through, the date is written at the top of the column, and the record is complete.

Placing the signs in the undated column is for work to be done. Putting the date at the top of the column says it *has* been done. An omission of indicated work is fixed by canceling the indication.

Only one caution is necessary, and that has to do with the use of letters. Try to use such as can not be interpreted in two or more different ways. For example, + 2 S in the "food" square might mean two supers added, either "comb" or "extracted," or it might be read as two pounds of syrup given. Hence, the "S" must be qualified by "C" or "Ex," for the different supers, and by "lb. Sy" for pounds of syrup. These features will quickly reveal themselves, but it is better to know them first and start right.

The records are best kept on loose leaves of stiff paper or cardboard held in thin tough covers by pieces of tape or string passed through the holes. Five cards will hold the records for 99 colonies. Usually the six columns will suffice for a season's work, when honey only is worked for; but when working for increase by building up nuclei, more room is needed; and in that case records are carried forward to new cards, when the earlier sets become filled. The carrying forward is simple, however, for all one needs is the grade number in the "colony" square, the queen's record in the "queen" square, and the nature of the work to be done or feature to be inspected on the next visit; and in actual practice I find a page (ten colonies) can be transferred in about three minutes, less for honey-producing colonies, more for colonies which have been built up, because then the grade has to be estimated from the additions. Sometimes it is easier with these colonies merely to transfer the queen record and indicate the work probably needed, leaving the "grade" to be filled in the "colony" square when the colony is inspected.

The lines on the cards are printed, as printer's ink will not blur if wet, as do lines ruled on. The printing is cheap, as only parallel lines are set up, and then the cards are run through the press twice for each side, the second time the cards being run through at right angles to what they were at first. This gives the squares.

A black leadpencil is used for the records, as it will not blur if wet; and by

using one of the right quality the records will not smut.

To give the system a trial, any one can easily make up a few sheets after the design shown, and follow the instructions, varying them, if he wishes to suit his own particular conditions or desires. It has fulfilled every need with me, and has served me no end of time, labor, and thought. I can heartily recommend it.

Providence, R. I., Aug. 12.

EXCESSIVE SWARMING IN AUGUST

BY S. A. FULLER

I have been having the time of my life for the last three weeks with my 150 colonies, for they have been swarming. On Aug. 1 I extracted and cleaned up comb-honey supers especially to make room, and they certainly had no lack of room. When the first swarm came out I opened the hive and cut out all queen-cells, put the swarm back where it came from, and put a queen-trap at the entrance. I went through all my hives and cut out queen-cells when started, and put on all the traps that I had. But they swarmed just the same. I had four large swarms go together—three from trapped hives and one from a hive having no trap. I cut cells out of one hive three times, and yet these bees swarmed twice. Three times a day for two weeks I put them back every time (I have a queen-trap on this one), and still they come. I had four swarms that were so large (several swarms together) that I had to put them in barrels.

The fall flow is on now from horsemint and goldenrod; but so much swarming will cost me the surplus. I should like to see the color of the man's hair who could keep these bees from swarming this season. Up to now my bees have done better this year than ever before.

I now believe if I had extracted Aug. 1 from the brood-nest I could have prevented this swarming; but it is too late to talk about it now. Any way, next year I shall try to avoid it. Having bees in this country in August is "something fierce."

Helena, Ark., Aug. 8.

Bees Stinging Drones of Queenless Colony

On page 540, Sept. 1, in reply to Dr. Miller's query, "Do bees sting drones?" you remark that you have never seen them do so. This fall, after the frost has killed the flowers, unite a colony that is queenless, and has lots of drones, with a colony that has a queen, and observe the bees stinging the drones by the hundred. This is the only condition under which I have seen them sting drones; but I have seen this many times.

Sept. 1.

PAUL SCHEURING.

Heads of Grain from Different Fields

Beginner's Questions

1. Must there be two queens to swarm?
2. How may honey be extracted from frames? I have only a few colonies and do not want to buy an extractor.
3. Do bees breed all the year?
4. How many frames of honey should be left in a good strong hive for wintering?
5. How often should one inspect his hive to see if all is going well?
6. If the comb in frames is old, should it be cut out and let them build fresh comb? What is the best time to do this? How often should it be done?
7. What will the bees do when all the frames and supers are full?
8. This year I bought a hive with bees in it; and when it arrived the supers were in a box with some bag cloth over one end. What is this for?
9. What months are the best for honey?

Philadelphia, Pa., July 1. J. SWEENEY.

[1. When a prime swarm—that is, the first swarm of a normal colony in a season, issues, it is accompanied by the old queen, and there is left for the parent colony, so called, ripe queen-cells from which will come a virgin which, after being mated, will become the mother of the colony.

2. It is difficult to extract honey from frames without a honey-extractor. You can shave the cappings off, place the comb in a horizontal position in a warm room, and drain the honey out, turning first one side and then the other to the screen on which the comb rests, but this is a slow process, and you can not get all the honey out.

3. In some localities there is more or less brood-rearing going on nearly the whole year; but in your locality the queen slows up on egg-laying after the main honey-flow is over, and, by early fall, has almost or entirely ceased. At such times she may be stimulated to further egg-laying by stimulative feeding, so as to make sure of a good force of young bees to go into winter quarters. Colonies wintered in a cellar are unlikely to begin brood-rearing along in the spring, while those wintered outdoors in your locality probably would not begin before March.

4. There is no definite number of frames of honey that should be left for a colony during the winter, for it depends upon the strength of the colony and also upon the place where the colony is wintered as to how much honey is needed. For a colony wintered in a packed hive outdoors, from 20 to 25 pounds should be left in the hive, and this means that there should be some honey in the upper part of the combs with considerably more in the outside combs on each side. Perhaps three inches of honey in the upper parts of the central combs would be sufficient, provided the two outside combs on each side were nearly full.

5. Do not open a hive oftener than is necessary; that is, do not open unless you have reason to think something is wrong or needs your attention.

6. If the comb is straight and good, with but very few drone-cells, there is no particular need of renewing it unless there is danger of disease lurking in it. The fact that it is old and black makes no particular difference, for this color always comes after a few generations of brood have been reared.

7. If all the available space for storing honey in the brood-chamber and super is taken up, the bees will probably hang out on the front of the hive, and will very likely cast a swarm a little later. Such a condition of affairs is conducive to swarming. It is needless to say that such a state of affairs should be prevented.

8. We can not say what this box covered with burlap is used for. Very likely it is merely a receptacle to keep the bees away from the supers. If it is a shallow box, it may be the chaff tray for use in winter.

9. If you mean what months are the best for the secretion of nectar, we will say that this will depend considerably upon your individual locality. If you depend mainly on white clover, we will say that in the latter part of June you will get your main honey-flow. If you have other honey-producing plants coming later, such as buckwheat, gol-

denrod, aster, etc., then these will come in their own seasons. The best way to find out particulars in this respect is to inquire of some old beekeeper living near you.—ED.]

Building a Support for Packing Over a Row of Hives

When getting ready to pack my bees for winter I build a board wall about three feet high, then place my hives on their summer stands in front of this wall side by side, leaving about four inches of space between the back of the hives and wall, and place the hives as close as they will stand and yet have room to work packing between them. I then use a ten-inch board to make a shelter in front, securing it near the top of the homestead, giving a slope sufficient to run the water off; and from this board I build up high enough so that, when the roof is on, it will slope back.

In placing the bees I leave the super on, and use a burlap or something of that kind to cover the bees; but under this I place two or three small corncobs across the frames half an inch apart. This gives the bees free access to all the stores. I fill the supers with oat chaff, put on the cover, and then fill the space back of and between, and in front and above, with autumn leaves well packed in, and then put on the roof. Now they stand facing the east, all well protected except in front of the homestead, and that sheltered with a ten-inch board.

I fill the space under this board with straw well packed in. This gives ventilation, keeps out the snow, and is easily removed at any time when the mercury runs up to 45; and the straw scattered out in front of them makes a good alighting-place. When spring comes it is safe to leave them in their winter quarters until severe weather is over.

I have tried wintering in the cellar, but do not have as good success as with the above plan. Milo, Iowa. B. A. MANLEY.

Bees of a Laying-worker Colony Desert Their Own Combs for Combs Having a Laying Queen

With reference to your reply to F. B. Fenner, Aug. 15, p. 523, I should like to relate my experience with "laying workers." I had two strong colonies with laying workers. After trying unsuccessfully three times to introduce queens I took a laying queen with two of her own frames of brood and bees, and placed her in an empty body (filling up the extra space with empty combs); then I put this body with the frames over one of the colonies of laying workers, using an empty body between the laying workers and the new queen. It was not long before the laying-worker colony deserted the combs and joined forces with the new queen. This experiment proved successful in case of both colonies. It is possible that a queen-cell would do instead of the laying queen; but I can not vouch for it, as I have not had a colony of laying workers to experiment with since the two mentioned above.

Calabasas, Cal., Sept. 3. JAMES K. HEDSTROM.

Brood that Hatched in Spite of Having Been Under Water

I have noticed some reference lately to the amount of cold that brood will stand without chilling. I had some experience this summer along that line that indicates to me that it will stand considerable.

On the night of July 21 a big thunderstorm passed over here, and it rained heavily—so heavily that the irrigation ditch overflowed. Our bees happened to be so located that about 20 colonies became flooded, a number of them being under water nearly to the top of the brood-frames. As there were supers on most of the hives the bees managed to keep above water. However, the strange part of it is, this brood that must have been several hours under water did not get chilled, for I found only a very few larvae carried out. Most of the brood was capped, and it hatched all right. One colony that was nearly submerged has made

four supers of honey since, which it could hardly have done had it lost all of its brood at the beginning of the honey-flow. It was in a Danzen-taker hive, and the brood was practically all covered. It was about 7:30 in the morning when I discovered that they were under water. I carried them out and cleared out the water as best I could. I fully expected that all of the submerged brood would die, and was happily surprised on later examination to find it all good. I did not think to take the temperature of the water that morning, but did on the following morning, when I think it was about the same. It then stood at 56 degrees F. The ditch had ceased overflowing when I discovered the calamity; and as the storm passed over just before midnight I am certain the lower part of the brood, at least, must have been under water for some time.

Ogden, Utah, Sept. 2. JOSEPH H. PETERSON.

Getting Rid of Laying Workers with a Bee-escape

It is not difficult to cure a colony of laying workers if they are taken soon after they have begun their work—that is, within four or five days after the first eggs have appeared. If a couple of frames of young brood, with the adhering bees, are given, queen-cells will almost invariably be started. It is well not to allow these to hatch, for the queen will almost certainly be inferior, so they may be replaced after two or three days by a ripe cell. A queen will often be accepted at this stage, but I have found introduction risky.

But when the laying workers have been allowed to go for ten days or more, so that the combs are filled with drone brood in all sorts of scattering stages, a cure may be said to be impossible, so far as making the colony of any use within a reasonable time. Under these circumstances the bees will seldom accept a queen if offered in any usual way, and the combs are too full of worthless brood any way to allow a queen to lay.

The result of a good many experiments in the past two years has led me to fix on the following plan, which has never yet failed me. A two-frame nucleus is made from a normal colony, and a queen introduced, or a very weak colony may be used instead of this nucleus, if there is one which needs strengthening. The laying-worker colony is set on a bee-escape board over the nucleus. That is all. In the course of four or five days, four-fifths of the abnormal bees will have gone down, one by one, and will have united themselves quietly with the nucleus. The few bees left above I have always fancied to be the laying workers themselves; but they do no harm if knocked out on the grass. The sealed drone brood is then uncapped, and left to chill over right. It may then be given back to the bees, which will clean out the dead larvae.

Stouffville, Ontario, Can.

F. L. POLLOCK.

A Burlap Awning in front of the Hive as a Shelter from the Sun or Snow

My method for a few years past has been to fill the super with good absorbents, such as sawdust, leaves, or excelsior, and to wrap the hive with heavy building paper well tacked on frame top to bottom, leaving the full entrance open. For a shield from snow or wind, I tack burlap along the top of the front of the hive, letting it drop over the entrance. In case of a single-walled hive, more paper can be put on and fastened with thin slats.

When the sun shines on the front of the hive, it shields the light from the bees. When warm enough for them to fly I throw the sack on top of the hive and drop it down as needed. I find it the best front protection, in my experience of fifty-two years in handling bees.

Conesus, N. Y.

D. W. TRESKOTT.

Living up to Their Name

In buying old lumber last winter I came into possession of a beer sign which I sawed and made into a hive with the big letters on the outside of the hive. Never have I had bees work as busily as this colony; for when they were put into this hive on the first day of June they had neither comb nor foundation. I was about to advise others to use saloon and beer signs for hives, when, hap-

pening to look into the brood-nest, it was plain that these bees had been doing crooked work from the very first. The combs were all crosswise and cornerwise. Would it be well to use brimstone at once, or will they do straight work another year if foundation is put into a new hive, and the beer sign removed?

Chelan Falls, Wash. Sept. 11. C. B. JACKSON.

[We would advise you to give the bees another chance. May be they will reform if you start them right once more next spring.—Ed.]

A Good Record Made by an Eighty-year-old Bee-keeper

When I started this spring I had thirty-six colonies of bees. As soon as they began to have three or four combs of brood I began dividing them, making increase following Mr. Doolittle's plan as well as schemes of others, and also drawing on my own fifty years of experience.

I extracted over ten barrels of honey, and besides this I have about 1000 lbs. of comb honey in plain sections. I did all of our work myself in spite of the fact that I was eighty years old the second of May. I am very busy now getting it ready for market. We have a very good home market here, and I think I will sell it all in jelly-glasses and Mason jars.

Newcastle, Neb.

A. C. BUTLER.

What a Three-frame Nucleus did on a Peninsula 1½ Miles Wide

The first of last June I purchased a three-frame nucleus and an observation hive. The bees entered the super on the first of August, and up to the present time I have obtained 56 pounds of comb honey. Besides this I should judge that there are from thirty to forty pounds of honey in the brood-chamber, and the little chaps are still hard at work. It seems to me that this is a good showing. There is very little farming here—no buckwheat or basswood, and we are on a peninsula not over 1½ miles wide.

Wood's Hole, Mass., Sept. 20. W. K. BUTLER.

Feeding in Cold Weather

[Have any of your correspondents ever tried feeding in midwinter? Last winter I fed small quantities of syrup in January, February, and March, when the ground was covered with snow, and when the temperature was far below freezing. I never before had bees come out in as good shape in the spring. One colony stored about 15 pounds of honey from fruit bloom. I did not lose over 500 bees all together by flying out and freezing.

Kansas City, Kans.

D. D. DOWNING.

[If syrup is fed hot right over the cluster, the bees can take it in cold weather. Sometimes, if the weather warms up a little they can take cold syrup. But in either case, feeding syrup in cold weather is of doubtful value, since it tends to excite the bees, causing them to expand the cluster unduly, etc. We should say that your experience is the exception that proves the rule.—Ed.]

Bee Demonstration to Swell the Membership of an Association

The farmers of upper Bucks County, Pennsylvania, held a two-days' picnic on the 6th and 7th of September. On those two days I made demonstrations of modern methods of beekeeping, using a wire cage, and this feature proved both profitable and entertaining, for several hundred people surrounded the cage whenever I entered it. The demonstrations stimulated beekeeping, and they were the means of bringing a number of new members into the Bucks County Association.

Richlandtown, Pa.

S. T. CLAY.

An Escape-board for Uniting Colonies

Aug. 1, p. 491, mention is made of the paper method of uniting bees. This is my plan: After taking the escape from an escape-board I place the board over one colony of bees and pour upon it half a pint of honey or thick syrup. Then I set the other hive on top.

Bellefontaine, Ohio.

CLYDE CORDREY.

Our Homes

A. I. ROOT

Be not unequally yoked together.—II. COR. 6:14.

Your adversary the devil, as a roaring lion, walketh about, seeking whom he may devour.—I. PETER 5:8.

Come unto me, all ye that labor and are heavy laden, and I will give you rest. Take my yoke upon you, and learn of me; for I am meek and lowly in heart; and ye shall find rest unto your souls. For my yoke is easy and my burden is light.—MATT. 11:28-30.

A BEEKEEPER IN TROUBLE.

The following letter somewhat explains itself:

Mr. A. I. Root:—I am in great trouble, and in jail on account of not being able to pay alimony to my divorced wife. This is an attempt to take my pension money away from me. I have had 12 dollars a month up till a few days ago, when it was increased to 30 dollars a month. They took ten dollars a month out of the twelve dollars for some time, till I had to sell my horse and cow to keep my two little boys and myself, and I am about \$500 in debt. I send you book and paper under other two covers, which will give you an outline of the case.

Sept. 10.

J. E. C.

The book sent me, referred to in the above, is about the size of GLEANINGS, and contains 59 pages. These 59 pages contain full details that need not and should not have been allowed to get into print at all, as they refer only to neighborhood quarrels between relatives and neighbors. Why in the world our good friend should have ever gone to the trouble of putting such matters in *print* is more than I can explain. Notwithstanding his statement that he is a poor man, and has had to sell his horse and cows, and part with his two little boys, in a letter in a local paper which he sends, he says he is working hard to get money enough to buy a gas-engine to run his extractor. He says his right arm is partly paralyzed by turning the extractor to extract so much honey. Now, my opinion is that turning the extractor has had but little to do with it. His nervous condition from dwelling so much on his quarrels with his wife and neighbors has brought on paralysis, and no wonder. Let me quote briefly from the first page of this book:

AN EXPOSE; A TRUTHFUL STATEMENT OF MY ACOQUAINTANCE, MARRIAGE, AND DIVORCE FROM
MAY E. SMITH.

In the spring and early summer of 1892 Miss May E. Smith came to my place repeatedly after a quart of honey vinegar. She had called herself Miss Chase to me; and, in fact, I did not learn her true name until, speaking to a schoolmate of hers and calling her Miss Chase, he said to me, "Her name is not Chase, her name is Smith." Yet I thought for some time after that she was Mrs. Chase's daughter by a former marriage. Certainly she had lived in Medford over four years when this took place, but my attention had never been called to her. I took her to be about fourteen years of age in the short dresses she wore.

I can tell you I was considerably surprised when she told me she was twenty years old.

I was forty-eight years old at that time, and was not interested in any girl so young, only to

treat them respectfully. But there was a persistency in her attentions and treatment of myself that would have taken an indomitable "I will not" to counteract, and thus I was led, forced, against my own best judgment into a marriage with this too young person, by and with the help of Mrs. W. S. Chase, a lady for whom I had the greatest respect at that time. I want to say right here that this marriage was the mistake of my life. I have my faults, as we all do. I am afraid of the person that has no faults; but can we not cut them out, nor make them grow less. I can stand a lot; my shoulders are broad; but surely my punishment for this marriage is too grievous. They have kidnapped my children, my pets, my darlings, my babies, out of the nice little home which I had provided for them, and left me bereft of my jewels in my old age, and this is a crime for filthy lucre, and nothing else, or why did they resort to perjury and fraud to accomplish this vile scheme? Three sisters perjured themselves—Amanda Smith Cady testifying that I drew a big revolver on her and her father. This is false.

A man 48 years old was unwise enough to get married to a little girl wearing short dresses. She claimed to be 20, but Mr. C. thinks she was only about 14. Of course it was a big blunder to contract such a marriage in the first place. But after it was all "said and done," and especially after there were some *children* given them, friend C. needed the grace of God in his heart if anybody *ever* did. A genuine Christian man—one who is full of the patience and forbearance of the Lord Jesus Christ, would get along with a wife, even in her teens, and the divorce he speaks of, I feel sure, was entirely wrong and out of place.

Dropping for the present the case before us, let us consider a little this matter of old men marrying young girls. I need not make particular mention of the millionaires who have quite recently divorced the wives of their early manhood, in order to marry a young girl—generally an actress. In fact, I have feared there are giddy and unscrupulous young girls who set about a course of training in order to capture or captivate some old man who happened to be rich; and I have watched as well as I could the results of such marriages. The young girl not only soon gets sick of her bargain, but the foolish (and, I might almost say, the idiotic) old man in a like manner would be exceedingly glad to get back to his first wife—the faithful companion, perhaps, for forty years or more, if it could be done. The divorced wife frequently had nearly or quite as much to do in accumulating the riches as the millionaire himself; and yet after the divorce she is put off with a mere pittance. Let me suggest to you John Jacob Astor, who recently died in the Titanic. In his will the faithful old wife was comparatively unrecognized,

while the young actress succeeded in scooping in several millions; and now there is a jangle about the millions that are to go to the baby only a few weeks old. If this thing is allowed to go on—this thing of letting a man go scot free or letting him trample the most holy and sacred laws (of both God and man) under foot, *because* he is a millionaire—we shall have something *worse* than “race suicide.”

Now, our beekeeping friend is by no means a millionaire; and this kind of sin is by no means confined to millionaires. How many times do we see old men acting silly around young girls—perhaps girls in short dresses! And, by the way, the short dresses of *late* do not seem to be confined entirely to girls in their teens, as used to be the custom and fashion. May God help us, or may he help us who claim to belong to the Lord Jesus Christ, to do all we can to put a brake on the work of that “roaring lion” who is just now particularly active in going about “seeking whom he may devour.” I suppose that, in every community, there are more or less old men, both married and unmarried, who act silly around young girls—especially if these young girls are full of life and attired in modern styles.

I am now going to come *still nearer* home. May God help me, the author of these Home papers, to beware how I take more notice of the bright young girls who are flitting around me like butterflies, than I do of the young boys who are just as nice and just as bright. Some time ago I made the remark that I really enjoyed being near the entrance of our factory (just before the whistle blows) and looking into the bright faces of our employees, and saying “good morning” to each and every one. I think I happened to remark that I especially liked to catch the eyes of the bright young boys as they come to their work exactly on time. While I was speaking, somebody in the crowd—I do not know but it was one of my daughters-in-law—looked up mischievously and asked me if I did not *particularly* enjoy saying “good morning” to the good-looking and nicely dressed young girls who work in the honey-room, the various offices, and in the packing-rooms of our establishment. There was a big laugh all around at this sally; and when I came to look into my own heart I confess I felt a little guilty. May God in his great mercy help me to keep even more closely in that straight and narrow way, and to look on all mankind even as did the dear Savior when he said, “He that doeth the will of

my Father, the same is my brother and my sister and my mother.”

Now, the old *men* are not altogether to blame in this matter. There are middle-aged and even elderly women who act foolishly around young boys. Years ago one of the first converts it was my privilege to lead to the Lord Jesus Christ made an abrupt change in his life. He deliberately *did* come “out of darkness” and get into the broad daylight of the gospel, and into a full trust in God’s promises. Christian people right and left extended to him a helping hand and bade him Godspeed in the new way. Among them was a woman prominent in Christian work. She took so *much* notice of him, and made so much of him, that I began to protest. I feared the boy might be spoiled by her overdoing. She excused herself by saying, “Why, Mr. Root, I am old enough to be his mother, and I am only taking a ‘motherly’ interest in him.” Her good husband was a beautiful example of Christian manhood. He, too, took an interest in the boy who had dropped his tobacco, profanity, strong drink, evil companions, and every thing else, and was a real friend to the boy. I cautioned the *boy* as well as her who wanted to be a “mother” to him. Finally the young man came to me and told me his troubles. This motherly woman had —. Then my young friend said something like this:

“Mr. Root, if there ever was a good man it is this woman’s husband; and I would rather die than harm him or his domestic relations by thought or deed. It will not *do* for me to be where I shall see this woman any longer or have any thing to do with her.”

May God be praised, this young man, by my advice, heeded that part of the Lord’s prayer where it says, “Lead us not into temptation, but deliver us from evil.” It is right and proper that elderly people should notice the boys and girls, lend them a helping hand, and watch over them in a fatherly and a motherly way; but whenever you are tempted to go further than that, remember the caution from your old friend in this Home paper.

Our beekeeping friend suggests that there was “a persistency in her attentions and treatment.” Now, girls of fourteen or fifteen often jest with, and banter elderly people with whom they are well acquainted, without a thought of any thing wrong.*

* A very good friend of mine, years ago, took me “Down East” to his old paternal home. He was very anxious that I should become acquainted with his father and mother and a younger sister. This sister was particularly bright and full of

I have more fear of the designing mothers back of the young girls than I have of young girls fourteen or fifteen. We should each and all of us, especially we men folks, pray constantly for grace and strength and wisdom to treat all young girls, wherever we see them, exactly as we would have all men treat our own daughters. This is sometimes a hard thing to do, I know, especially if all men are created much after the same pattern as myself. But you know the promise in God's word, "My grace is sufficient for you," and, again, "He will not suffer you to be tempted above what ye are able to bear."

Now comes in one more thought, and it is a most important matter. Old men and perhaps young men are in this present day and age, many of them, employing bright young girls as stenographers; and oftentimes these stenographers are shut up with the employer in his office away up many stories high. *I would not have it.* May be you will think I am old-fashioned and over cautious, but I *know* whereof I speak. Granting, if you choose, that there are hundreds and thousands of good girls earning their bread in this way, the fact still remains they are making a precedent and at the same time setting a bad example. A nephew of mine is a skillful physician. When girls go to his office for counsel he tells them that they must bring their mothers along; or if that is not convenient his good wife is called into the room, and she remains there until whatever must be said and done is ended; and may God be praised that I *do* know of *one* such family doctor. Now let us have society so framed that it will be generally understood that it is not exactly the thing for a man and woman who are not related to each other to be kept much together. As a rule I deprecate gossip; but my good pastor, Rev. A. T. Reed, years ago, said that, when things of this kind are going on, people *ought* to talk, and he said he was often glad that they *did*.

Not very long ago a banker with whom I am acquainted was talking about getting

life. My friend took particular pains to have us two become acquainted. During my stay of two or three days we became so *well* acquainted that my friend suggested to his sister something like this:

"Sister, I trust you will not forget that Mr. Root is a married man while he and you seem to be having such a good time together."

I shall always remember her quick repartee—"Dear me! do you think I would carry on in this way with anybody who was *not* a married man!"

Her philosophy (and I think it was reasonably sound) was like this: Every man who has a wife (and especially if he has a baby too) at home, is expected to be *manly* in the best sense of the word, no matter *where* he is nor what the *circumstances* may be. "Blessed are the pure in heart, for they shall see God."

a divorce from his wife, or, rather, she was going to get the divorce—it does not matter particularly. The reason was the employment of a lady book-keeper. The wife wanted this woman dismissed. But the banker said that would mean ruin to his business to dismiss that faithful and competent woman. In discussing the matter with a Congregational minister of that town, this minister declared that this wife was unreasonable. But I said, "No, no, no! Let the banking business be ruined or even wrecked; but do not wreck or ruin the sacred relation between this man and wife." Some of you may suggest that sometimes women are unreasonably jealous. There may be a few of that kind, but I do not believe it occurs very often. I do remember one case where a man was jealous of his wife where there was not a shadow of reason for it; but this man was very soon after pronounced *hopelessly insane*.

I like to see warm and intimate friendships, and I like to see friendship between the young and old; but I always feel worried and troubled when *too intimate* friendships exist between old men and young girls. Beekeeping and poultry-keeping, greenhouses, gardening, flowers, high-pressure gardening, the study of botany, microscopy, and even astronomy, often bring together intimate relations between people in various parts of life. If some bright young woman is skillful with chickens, and you enjoy paying her frequent visits, go right ahead; but take your *wife* along, even if said wife does not care much for the chickens. If you have no wife, get one; and if this expert poultry-woman has no husband, get *her* by all means; and if you can not get her, do a good job in trying; and after you have once gotten her (so you can call her *your own*), so live that all men may know you are remembering that solemn vow you took: "What God hath joined together, let not man put asunder."

I have spoken of young girls full of health and buoyancy of spirits who oftentimes innocently attract the attention not only of old men but men of all ages. Now, when these girls need a guiding hand from the father as well as from the mother, what do you think of the wretch in human form who deliberately waylays these children (for that is what they are), and brings them down to ruin? The dear Savior contemplated this, I think, when he said, "It were better for such a man that a millstone were hung about his neck, and he were cast into the depths of the sea."

Just recently I have been pained to note by the daily papers that the city of Cleveland has been, during the past summer, inaugurating what they call "three-cent dance-halls." These dance-halls purport to be for the purpose of giving the children outdoor exercise; and I have been waiting and wondering why some of the Christian men and women of the different churches of that great city did not come out with a vehement protest, especially when the authorities are proposing to open even a *greater* number of three-cent dance-halls. The following clipping from the *Cleveland Press* would indicate that there are asylums or institutions of some kind in Cleveland to take care of these unfortunate results from the dance-halls:

"It is plainly the mother's duty to acquaint her child with the important facts of life. But the majority of mothers are obviously failing," said Mrs. Clark. "We have from twenty to thirty girls here constantly.

"They come from some of the best homes in the cities, and some of our so-called 'finest young men' are responsible. They come here almost invariably by way of the public dance hall and amusement parks.

"Just now we are caring for the results of last winter's dances in the public halls. After the first of the year those girls who this summer have frequented the parks to their own grief, will come to us. What does it all mean?

"Primarily that their mothers failed to do their duty when they failed to tell them the things they should know.

"If each girl were closely questioned I doubt if we could find three of them who had been told the truth. I base that estimate on the fact that so many of them range from thirteen to seventeen years. One child of thirteen gave birth to a baby girl here this morning. Her mother, heartbroken with grief, admitted to me that it had been her own fault.

"Since the majority of parents either can not or will not instruct their children, I think it is flatly up to the state, through the schools, to supply that instruction."

Let me add to the above clipping that I fear our reform institutions will accomplish but little in the way of *cure* while every great city forgets all about *prevention*, and keeps on opening up more three-cent dances.

When friend C. first sent me the letter at the head of this Home paper I wrote him as follows:

My good friend, I have looked over your book quite a little, but really can not take time to read all of it. It seems to be an account of neighborhood quarrels and family quarrels that nobody in the world, except your immediate community is interested in. I think you did a very foolish thing in putting so much gossip in print; and if you will excuse plain talking I am sure you must be at least somewhat to blame. I never knew of a neighborhood where there were not more good people than bad, and where the general public are not always ready to give a poor man a chance. Neither in your letter nor in your book do you intimate that you have been holding fast to God's promises. I will quote just this one: "Blessed are ye when men shall revile you, and persecute you, and shall say all manner of evil against you falsely, for my sake."

Now, if you are trying to do right, and ask God to help you every day of your life, I don't see how you can have any such trouble. Get down on your knees, and ask God to forgive you

for what you have done wrong; then ask him to guide your erring footsteps. Remember also the promise: "My yoke is easy and my burden is light." "Come unto me, all ye that are weary and are heavy laden, and I will give you rest." If you will do this I am sure you will not only be at peace with your neighbors but with the good wife, the mother of your children. I wish you would show her this letter. If you are both beekeepers, I suppose you have been reading my Home talks in GLEANINGS. I have prayed for you both, and I will pray for you again.

Your old friend,

Sept. 13, 1912.

A. I. Root.

Well, in due time I received the following reply:

Mr. Root:—I am ashamed to have such a letter in my possession as you wrote me. Certainly it is plain that you did not read my book. Do you think I would place that letter in this woman's hands? She would clap her hands and screech with delight at my inability to protect myself from her. Surely she would not have to pervert that letter to her liking.

In regard to myself, first I am persecuted because I am a beekeeper; next, because I was friendly to *sweet clover*; then, last but not least, because opposed to strong drink being shipped into our no-license village, and kept in a blind piggery where several claimed the right to store their liquor, then come together, to drink it; then have the brewery team come from F. every few days and deliver beer in bottles and kegs at this "piggery," and also at their private houses in broad daylight. You should remember that I received 250 copies of "A Stainless Flag" by Dr. Chapman, which I faithfully distributed in F. and the towns of O. and M., and that O. came within *eight votes* of going dry; and I believe that, if I had had the 300 copies that the box would have held (50 copies more, in place of refuse paper), O. would have gone dry.

This (for reasons best known to myself) I left out of the book. This woman's father was a notorious drinking man. Liquor and crime go hand in hand; thus this crime comes against me. I took GLEANINGS for your writings and nothing else; yet I look it over a little, more for sweet clover and alfalfa than any thing else. I have four acres of sweet clover and 3½ acres of alfalfa. I am no hypocrite, so say little about religion. I would be a poor person to speak in church, yet I have sung in choirs for many years, and I thoroughly believe what I sing. Do you think that I could sing otherwise? This woman never looked in GLEANINGS that I knew of, nor a Bible either.

I wish I could get three or four copies of "The Truth About Sweet Clover." I think I have two or three copies of "A Stainless Flag" yet at home, which I should like to get into this jail. Oh the terror of strong *drink*! There is a man in this jail who killed a babe less than a day old—a Bohemian. His wife comes about twice a week to see him. He is a prosperous farmer, worth \$50,000; and now he is sober, they both nearly die over the matter.

Yours respectfully, ———.

Jail, Sept. 24, 1912.

I have given the above letter entire because it illustrates the sad condition of one who has become entangled in a family quarrel, and finally in a quarrel with neighbors also. It would look at first glance as if the writer had been persecuted for righteousness' sake; but come to look into the matter carefully it hardly seems likely that people should all be against him because he is a beekeeper or because he is friendly to sweet clover, and certainly not because he is a temperance worker and one who is faithful and earnest in distributing temperance literature. He says he took GLEANINGS for my writings and

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nothing else, and yet in a former letter he speaks of having partial paralysis from turning his honey-extractor so much. If he is so much of a beekeeper as that, he certainly ought to be interested in that part of the journal devoted to bee culture. His statement that he sang in the choir for many years indicates what we already know, that those who sing in our churches do not *always* belong to the Lord Jesus

Christ; and it is also true that we have some most earnest and faithful temperance workers who devoutly hate the liquor-traffic-but do not stand up before the world as followers of the Lamb of God that taketh away the sin of the world.

If any of our readers should feel like lending a helping hand to our poor persecuted brother, his full address will be furnished on application.

Poultry Department

FORECASTING THE LAYING HENS, ETC.

I have searched in forty or fifty poultry journals to see how much attention has been paid to friend Leonard's discovery that most laying hens lay their eggs a little later, more or less, every day. But little or no attention so far has been paid to the matter. That handsome journal called *Poultry* mentions a great layer that was in the habit of doing this when she was ready to take a little rest, in her wonderful stunts of an egg every day. See the following:

The best individual record is that made by Lady Showyou, White Plymouth Rock hen, No. 717. This record for each month is as follows: November, 17 eggs; December, 22; January, 5; February, 17; March, 20; April, 29; May, 31; June, 29; July, 29; total, 208.

She has 92 days yet left in which to complete her year's record. The only month this hen has failed to lay an unusually large number of eggs was in January. We had a snow about January 5 which was nearly two feet deep, and the temperature went to about 24 below zero. Lady Showyou laid an egg the day following, and then quit business until about the 5th of February, taking just a month's lay-off. She then began a rather remarkable period of production in the days following this, laying 146 eggs in 151 consecutive days. She is the most industrious hen among the 655 in the contest. She goes immediately from the roost about daylight each day into her trap nest. She lays the egg, and is released from the nest about eight o'clock in the morning. She then spends the remainder of the day in eating a large amount of food and drinking lots of water, out of which to manufacture eggs for future days. We can usually tell about when she is going to miss a day. As this time approaches, she lays a little later each day; that is, if she is to miss soon, we do not find her in the nest as early as usual. She will go on at 10 o'clock; the next day at 11 o'clock; and the day before she misses, we do not find her on the nest until about four o'clock in the afternoon. When we find her on as late as this she then misses the following day; but the next day she has laid by 8 o'clock, and keeps it up at that hour until time to miss again. She has missed laying only five days in the past five months, and this has been true of her in each case when she missed a day.

Surely those who are trapnesting poultry at our experiment stations have had ample opportunity to learn *how many* hens lay eggs after this fashion. So far the answer seems to be that a few good layers lay in that way. Perhaps a greater number *occasionally* lay a little later each day until they finally skip a day. When

a hen is insufficiently nourished to produce an egg once in 24 hours we might naturally expect she would take a little longer period, and, as a result, finally drop an egg from the roost in the night, or wait until next morning, thus skipping a day entirely.

SURPLUS ROOSTERS; THEY ARE COSTING OUR COUNTRY 50 MILLIONS OF DOLLARS ANNUALLY.

The above is rather astonishing, is it not? But the statement comes from the State Board of Agriculture of Pennsylvania. Read the following, which I clip from one of our poultry journals:

W. Theodore Whitman, of Allentown, poultry lecturer for the State Board of Agriculture, and superintendent of the Allentown fair poultry show, in a recent issue of the *Philadelphia Press* states that he has started an earnest crusade for the production of infertile eggs for table use as a source of economy and greater healthfulness. So ardent does Mr. Whitman feel on this subject that he declares that eventually the legislature of the various States as well as Congress will enact laws on this question. Mr. Whitman declares that the fertilizing of eggs is the chief source of rots and spots, and that it is a fallacy that hens will lay better eggs if roosters are allowed to run with the flock. Roosters, he says, should be killed off, with the exception of the few best specimens that are needed for breeding, and even they should be kept penned up outside of the mating season. He said:

"It has been proved by investigations and tests at agricultural colleges that the hen does not need the rooster. She is better off without him at a time when she should be doing the work of making profit for the farmers by laying eggs which he can sell.

"If the farmers of this country would keep the hens away from the roosters at all times except during the mating season this country would be saved fully \$50,000,000 a year. By this I mean that eggs valued at this amount are spoiled every year. They could have been saved if they had been infertile."

From what experience I have had, I am satisfied that the above is correct in the main, although I should have never placed the figures so high. All that it is necessary to do to avoid this great waste is for the farmer or any other keeper to pick out his best hens and place them with his best roosters only *when he wants eggs for hatching*, meanwhile either disposing of the roosters he does not wish to breed from or pen them up by themselves. I believe it has been settled by numerous experiments

that hens, especially pullets, lay *better* when they are not worried by the males—especially the surplus males. Shall we not all of us “sit up and take notice.”

MUSTARD FOR MAKING HENS LAY; THE ORIGINAL “STRIKEBREAKER.”

So many inquiries have come to me in regard to the use of mustard, that I clip the following from the *Petaluma Weekly Poultry Journal*:

“STRIKEBREAKER” FORMULA.

For the benefit of new readers of the *Journal* we here reprint the “Strikebreaker” formula given some time ago by Mr. Keyser, and referred to by

him in his article this week. It is as follows: Blood meal, five pounds; bone meal, five pounds; yellow-mustard bran, ten pounds; saltpeter, one pound; sulphur, one pound; Venetian red, two pounds. To be fed heaping tablespoonful to twenty-five hens once a day in wet or dry mash.

Of course, the blood meal is a good thing for chickens of all ages; and so is the yellow-mustard bran; and may be saltpeter is also—I can not tell about that. Sulphur is probably a good tonic, and Venetian red, which is a salt of iron, may be all right. You will have to decide the matter yourself. As good results have come from the mixture as given above, it may be all right.

Temperance

Woe unto him that giveth his neighbor drink, that putteth thy bottle to him, and makest him drunken also.—HAB. 2:15.

Suppose I should paraphrase the above by saying, “Woe unto the United States of America if it continues to use its influence and machinery against our nation by ‘putting the bottle to the lips’ of our people, especially the boys and girls of this land.” And we might add, “Woe unto the United States of America if it persists and continues in putting the bottle to the lips of a people who have combined together to make their locality ‘dry territory.’” And still once more let me say, “Woe unto the people of the United States if they continue to put the bottle to the lips of those of foreign lands by sending shiploads of beer on the very vessel that carries less than half a dozen missionaries. Some liquor speaker who was recently defending the liquor traffic referred to ancient Greece. He said they were the most scientific and progressive people in the world in their time; and he added that they drank wine and other liquors, and drank them freely. Somebody in the audience “turned the table” by asking the question why ancient Greece at the present time is a mass of desolate ruins instead of being the center of science, civilization, etc. Just after friend Doolittle’s protest in our issue for Oct. 1 came out, the following from the *Christian Endeavor World* appeared. Read it:

All the party platforms are silent on this vital question (except, of course, the Prohibition platform) though they deal with a great variety of topics, and enter into the elaborate discussion of all other great social and economic reforms.

The writer of this editorial has never voted the Prohibition ticket in his life, but he is growing very tired of the persistent ignoring of the saloon question by the parties of numerical preponderance. Why is it necessary to ignore other questions in order to speak out manfully on this question? All parties advocate the initiative and referendum; why should not all parties advocate a Constitutional amendment forbidding the shipment of liquor into prohibition States? It is not necessary to leave one’s

party to vote in favor of presidential primaries, for all parties favor the reform; why should it be necessary to leave one’s party in order to bring about local authority over the saloon question? Are the leaders of the great parties aware of the predicament in which they are placing the conscientious voters in their ranks? By their insistence that the saloon is not a political issue they are doing their best to make it the overshadowing political issue of the times.

Perhaps I might mention right here, what you all know, that we are finally to have a parcels post, or at least a partial parcels post, and we should be thankful for so much. How did it come about, when these politicians and a lot of our big men were strongly against it? How did it come about that the express companies *finally* find themselves helpless? It came about because common people like you and me waged war against the flagrant injustice of our postal laws of the past. Well, when our people and our periodicals like the *Christian Endeavor World*, with its vast following, come out openly and declare against the shipment of liquor into prohibition States, something is going to be done. For some time back I have been saying repeatedly, in substance, that I would never vote for a man or a party that is too cowardly to come out in the open and denounce the liquor-traffic. It begins to transpire that I am by no means alone in my declaration. Let me repeat, by way of emphasis, what the *Christian Endeavor World* has said—why should our great political parties, year after year, go into elaborate discussions over all other reforms, and ignore and evade this one crowning curse of our nation? A revolt is coming. I do not know but I might call it a revolution. In fact, it begins to seem as if the time were coming for another “revolutionary war.” It is not altogether the liquor-traffic. Pushing the cigarette trade where the people do not want it, in China, for instance, is in the same spirit,

"putting the bottle to our neighbors' lips."

To show you how the great wide world seems to be moving forward in the lines I have indicated, I submit below a mass of evidence gathered from periodicals scattered all over our nation:

CREATING A DEMAND FOR CIGARETTES IN CHINA.

See the following, clipped from the *Chicago Advance*:

The Anti-cigarette League and other anti-tobacco movements which have done so much to put cigarettes out of the reach of young Americans will now have a chance to work on the Chinese if they care to invade that country. Opium, for centuries the curse of the Chinese empire, has given way before the insidious American cigarette, while in America the cigarette is leading to a more general use of opium, according to Professor Albert Schneider, in charge of the United States Bureau of Chemistry at San Francisco. Following the campaign against opium in China, the "tobacco trust," through its American and European branches, sent an army of men into the empire and distributed free more than \$5,000,000 worth of cigarettes. Professor Schneider says boys and girls in China, many little more than able to walk without assistance, are confirmed cigarette "fiends." Professor Schneider said he had been told opium was put into the cigarettes now being sold in China.

Just think of it, friends! China has lately been bending every energy to banish opium, and wonderful things have been accomplished; but right in this very action, when China is struggling to get out of darkness and into the light of the present age, this huge octopus, this same "tobacco trust," proposes to spend *five millions of dollars* for cigarettes to be given away to children in order to create an appetite and enable the great tobacco company to make more money—money, just money. That is all they are living for. Shall not the whole wide world rise up in defense of the Chinese children?

SHALL WE TEACH OUR BOYS ON THE FARM HOW TO GROW TOBACCO?

Just now this question seems to be up for consideration by the agricultural periodicals of our land. Shall these periodicals publish directions for growing a crop of tobacco, without a protest or even a suggestion as to its ultimate effect? Below is a clipping from the periodical called *The Farmer's Wife*, which seems to touch the spot:

A WOMAN TOBACCO GROWER.

Commercial bulletins report a Kentucky woman disposing of a crop of 3000 to 4000 pounds of tobacco which she raised on her farm. Perhaps in dollars and cents this was a good paying crop, but we wonder if this woman has a husband who "smokes from morning till night," and whose children have inherited the taste or it until ordinary tobacco, "like father uses," does not satisfy the craving, and other strong and more harmful narcotics are resorted to, perhaps at first on the sly, but ultimately in the broad open.

Here is another clipping from that same paper:

A YANKEE QUESTION.

The alarming increase of infantile paralysis has put the whole world on its guard in the work of prevention. In some cities restrictions have been placed on the attendance of school, church, and public libraries in order to guard against the development of new cases, on the ground that 400 children have died from this disease in the United States within the last year.

Four thousand children die of alcoholic diseases in this country each year, but that business is not quarantined. It is licensed. The very powers that would guard the lives of 400 children so sacredly will sacrifice the lives of 4000 without a qualm of conscience. Why? Perhaps every reader has his own answer on this subject.

Yes, indeed, why make such an ado about 400 children, and continue to keep mum in regard to 4000 others condemned to imbecility or a crippled condition for life, etc.? Here is something worse than death in babyhood.

Here is one more clipping from that same issue of *The Farmer's Wife*:

THE CHINAMEN'S OPINION.

"Alcoholic drinks which are now being introduced into China are called by the Chinese newspapers 'new Jesus poison' or the 'German poison' to distinguish them from the English poison, opium."

To say the least, that is not the creditable reputation which the United States, posing as a missionary country to nearly every foreign land, should crave. Where and what is the power that can call a halt on federal permission to send shiploads of American merchandise, oftentimes outweighing in poison what they contain in life-uplifting principles, to foreign shores?

Poor heathen China! that is, we have have been in the habit of *calling* them that. But is it any wonder that they should strike on to that suggestive title, "the new Jesus poison"? Just this of it! Shiploads of alcoholic drinks, with now and then a missionary, to uplift and *Christianize* 400 millions of Chinese!

THE GOVERNORS OF OUR DIFFERENT STATES —SHALL THEY BE WET OR DRY?

Some of you may suggest a Governor who stands neutral. My friends, it seems to be apparent just now, even if it has not been apparent heretofore, that there is no neutral ground on the wet and dry question. "He that is not with me is against me" comes in with wonderful pertinence right here. In a recent issue of the *Union Signal* there were letters or extracts from speeches from fifteen or twenty Governors of that many States, who come out so strong and clear that there is no misunderstanding or evasion.* Here is what our good friend Ex-governor Frank Hanley has to say about it. I clip it from the *Cleveland Plain Dealer*:

"I urge you to vote for no man for governor of Ohio this fall unless he is pledged to enmity to the saloon."

Such was the gist of the message delivered by

* By the way, it is worth while to read the "honor roll" of the States that have or have had such Governors. They are as follows: Maine, Kansas, Oklahoma, West Virginia, South Dakota, Mississippi, Tennessee, Texas, North Carolina, Washington, Utah, Arkansas, and Michigan.

Ex-gov. J. Frank Hanley, of Indiana, to the Methodist ministers of the Northeast Ohio conference at their session at Epworth Memorial Church last night. A packed church auditorium and Sunday-school room listened to his address.

Why is not friend Hanley once more Governor of some of our States, or, better still, *President of the United States?*

"THE RIGHT OF WAY," ELECTRIC CARS OR "BEER-WAGONS."

Near Cleveland, on Sunday, the 8th of September, a beer-wagon was driven leisurely up to a railway crossing. The motor-man, with two cars in charge, supposing, of course, the wagon would stop when the car was in plain sight, pushed ahead; but for some reason or other, however, the stupid driver of the beer-wagon paid no attention to the railway track nor to the fast-coming car. In an instant there was a terrible smash-up. After considerable time spent in going over the cause of the accident, the city authorities decided that the electric cars were making too fast time, especially (although they do not say so) when beer-wagons might be discommode(?) unless a slower speed were adopted. I read the various items in regard to the catastrophe with surprise and indignation; but a day or two afterward somebody had good sense enough to send the following to the editor of our daily:

Editor Plain Dealer:—I have just read in this morning's paper of the bad accident on the Lake Shore Electric at Dover Bay yesterday, caused by a beer-wagon crossing the track in front of a limited.

I notice that the authorities of the village have concluded to cut down the speed of the cars; but there is no comment, so far as I can see, as to why the beer-wagon should be there on Sunday, in violation of the law, nor as to the driver crossing the track without looking to the right or to the left, as one man testified.

It puts me in mind of the authorities in a Tennessee town, who, when the law was passed limiting the distance of saloons from a schoolhouse, met in solemn assembly and took steps to—move the schoolhouse.

I. K. HURT.

Amen, friend H., to what you say. When beer-wagons pushing their traffic on Sunday are of more consequence than the safety of the traveling public (although to tell the truth I do not believe in so much unnecessary travel on Sunday) it seems to me things are coming to a pretty pass. Have the good people who love righteousness and hate iniquity really *all gone to sleen?*

ACCIDENTS AND CATASTROPHIES IN SUNDAY TRAVEL.

In the Chicago *Advance* the editor has a column headed "I am Moved to Remark." Here is a recent one:

That an automobile can make a bloody Sunday—it would be safer for some people to be at church.

Let me add to the above that the Cleveland *Plain Dealer*, which is not at all pu-

ritanical, has repeatedly called attention to the accidents and tragedies that occur almost as regularly as Sunday comes, in greater numbers than in any other day of the week; and notwithstanding this, nobody seems to suggest that these deaths and injuries occur just as our people have less and less scruple about using God's holy Sabbath as a day of rioting and recreation.

"DUFFY'S WHISKY" FOR THE CURE OF CONSUMPTION, ETC.

The following is clipped from the *Union Signal*:

Of all the drugs that have fallen into disrepute in late years, alcoholic liquors may be said to take the lead. Whisky was once thought an essential for consumptives. Now consumptives are warned against it on every side, except by a few ignorant (or worse) doctors, such as those who give testimonials to Duffy's Impure Malt Whisky. Indeed, alcoholic liquors are now declared to be a prolific cause of consumption.

Just think of whisky for the cure of consumption, and even spending thousands of dollars for the insertion of advertisements of whisky when whisky of any sort, let alone cheap impure whisky, is the very *worst thing* for a consumptive. And yet respectable periodicals continue to accept advertisements of *Duffy's malt whisky*.

THE STATE OF MAINE AGAIN TRIUMPHANT.

We clip the following from the *Union Signal*:

TRIUMPH FOR PROHIBITION IN MAINE.

As we go to press, the news is received from our National President, Mrs. Lillian M. N. Stevens, that William T. Haines has been elected Governor of Maine. This is a splendid victory for prohibition, and a heavy blow to the liquor interests, who have been using every effort to defeat him.

As we go to press I see there is general rejoicing in temperance and Christian periodicals all over our land that Maine has finally succeeded in getting a governor who is in sympathy with prohibition, in place of his predecessor, who openly favored the liquor party.

TEMPERANCE PROGRESS IN MICHIGAN.

A goodly number of wet and dry county campaigns are in process of organization. The legislature will be in session in January. All three of the candidates for governor are dry men, and the legislature looks good. The interstate liquor-shipment bill has been favorably reported by the Senate at Washington, and is practically sure of passage.

The strongest endorsement the Anti-saloon League ever received was given it at the General Methodist Conference at Minneapolis in May, when, out of 819 delegates, only twenty-five men voted in the negative. The Detroit Methodist Conference in session at Alpena, Monday, the 16th, gave the league a most hearty and enthusiastic endorsement by a vote of 420, only three men voting in the negative.

The great question in Michigan to-day is, "Have we staying qualities?" There is no question of the final victory if we have.

GEO. W. MORROW,
State Superintendent of Anti-saloon League of Michigan.